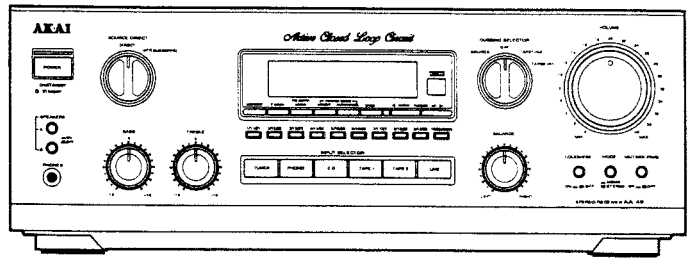
AKAI SERVICE MANUAL



MODEL AA-49

STEREO RECEIVER

MODEL AA-39, 49

SPECIFICATIONS

Tuner section

FM

Tuning frequency range	87.5 MHz to 108.0 MHz
Usable Sensitivity	1.8 µV
Quieting Sensitivity	21.2 dBf (mono)
(S/N = 50dB)	34 dBf (stereo)
Total harmonic distortion	0.1 % (mono), 0.2 % (stereo)
S/N	72 dB (mono), 69 dB (stereo)
Frequency response	40 Hz to 15 kHz (+2 dB, −3 dB)
Stereo separation (1 kHz)	45 dB
Selectivity	70 dB
Capture ratio	2.0 dB
Image rejection	45 dB
IF rejection	85 dB
Spurious rejection	80 dB
AM suppression	65 dB

MW

Tuning frequency range	531 kHz to 1602 kHz
Usable sensitivity	200 µV/m
S/N	45 dB
Selectivity	23 dB

LW

Tuning frequency range	144 kHz to 351 kHz (E, B) 144 kHz to 288 kHz (V)
Usable sensitivity	600 µV/m
S/N	35 dB
Selectivity	23 dB

Amplifier section

Power output (at AC 230 V)	
AA-49	100 W + 100 W (DIN, 4 ohms, 1 kHz, 1 %), 70 W + 70 W (DIN, 8 ohms, 1 %) 60 W + 60 W (FTC, 8 ohms, 30 Hz to 20 kHz, 0.05 %)
AA-39	80 W + 80 W (DIN, 4 ohms, 1 kHz, 1 %), 55 W + 55 W (DIN, 8 ohms, 1 %) 45 W + 45 W (FTC, 8 ohms, 30 Hz to 20 kHz, 0.05 %)
Power band width	10 Hz to 60 kHz/0.1 %
Total harmonic distortion	0.008 % (1 kHz, 8 ohms)
Frequency response	5 Hz to 100 kHz (+0 dB, −3 dB)
Tone control	
Bass	±10 dB (100 Hz)
Treble	±10 dB (10 kHz)
Input sensitivity/Impedance	
Phono	2.0 mV/47 k ohms
CD/Tape/Line	150 mV/47 k ohms
Damping factor	65 (1 kHz, 8 ohms)
Residual noise	0.1 mV (IEC-A)
S/N	
Phono	81 dB (IEC-A)
CD/Tape/Line	99 dB (IEC-A)
Audio mute	−20 dB
Full mute	−70 dB
Channel separation	65 dB (1 kHz)/55 dB (10 kHz)
Cross talk	
CD to Phono	90 dB (1 kHz, 500 mV Input level)
CD to Tape/Line	90 dB (1 kHz, 500 mV Input level)
Required speaker impedance	
A or B	4 ohms to 16 ohms
A and B	8 ohms to 16 ohms
Power requirement	220 - 230 V, 50 Hz for Europe except U.K. 240 V, 50 Hz for U.K. (AA-39 only)
Power consumption	
AA-49	150 W
AA-39	125 W
Dimensions	425 (W) x 156 (H) x 370 (D) mm
Weight	
AA-49	12.1 kg
AA-39	11.3 kg

Standard Accessories

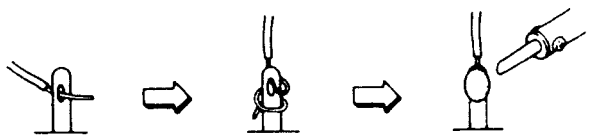
Operator's Manual	x 1
Remote control unit	x 1
Dry batteries (R6 (AA))	x 2
FM antenna	x 1
FM antenna plug	x 1
AM loop antenna	x 1

* For improvement purposes, specifications and design sre subject to change without notice.

★SAFETY INSTRUCTIONS

PRECAUTIONS DURING SERVICING

1. Parts indentified by the ⚠ (*) symbol are critical for safety. Replace them only with the parts number specified.
2. In addition to safety, other parts and assemblies are specified for conformance with such regulations as those applying to spurious radiation.
   These must also be replaced only with specified replacements.
   Examples:RF converters, tuner units, antenna selector switches, RF cables, noise blocking capacitors, noise blocking filters, etc.
3. Use specified internal wiring. Note especially:
   1) Wires covered with PVC tubing
   2) Double insulated wires
   3) High voltage leads
4. Use specified insulating materials for hazardous live parts. Note especially:
   1) Insulation Tape
   2) PVC tubing
   3) Spacers (Insulating barriers)
   4) Insulation sheets for transistors
   5) Plastic screws for fixing microswitch (especially in turntable)
5. When replacing AC primary side components (transformers, power cords, noise blocking capacitors, etc.), wrap the ends of the wires securely around the terminals before soldering.



6. Make sure that wires do not contact heat producing parts (heatsinks, oxide metal film resistors, fusible resistors, etc.).
7. Check that replaced wires do not contact sharp edged or pointed parts.
8. Also check areas surrounding repaired locations.
9. Make sure that foreign objects (screws, solder droplets, etc.) do not remain inside the set.

SAFETY CHECK AFTER SERVICING

After servicing, make measurements of leakage-current or resistance in order to determine that exposed parts are acceptably insulated from the supply circuit.
The leakage-current measurement should be done between accessible metal parts (such as chassis, ground terminal, microphone jacks, signal input / output connectors, etc.) and the earth ground through a resistor of 1500 ohms paralleled with a 0.15 μF capacitor, under the unit's normal working conditions. The leakage-current should be less than 0.5 mA rms AC.
The resistance measurement should be done between accessible exposed metalparts and power cord plug prongs with the power switch (if included) "ON". The resistance should be more than 2.2 M ohms.

MAKE YOUR CONTRIBUTION TO PROTECT THE ENVIRONMENT

Used batteries with the ISO symbol for recycling as well as small accumulators (rechargeable batteries), mini-batteries (cells) and starter batteries should not be thrown into the garbage can.
Please leave them at an appropriate depot.

★INFORMATION

SYMBOLS FOR PRIMARY DESTINATION

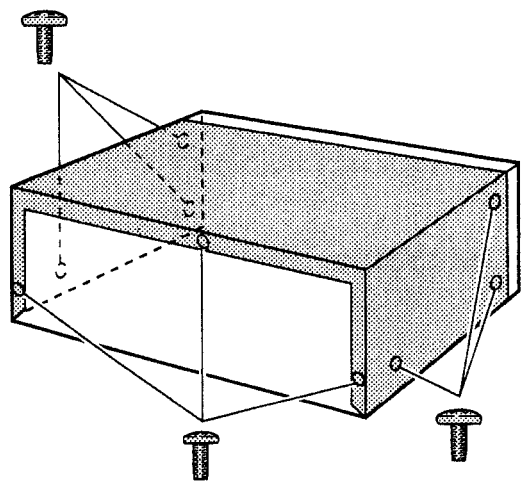
Alphhabet indicates the destination of the units as listed below.

Symbols	Principal Destinations
A	U.S.A.
B	U.K.
C	Canada
E	Europe (except U.K.)
J	Japan
S	Australia
V	Germany
U	Universal Area
Y*	Custom version

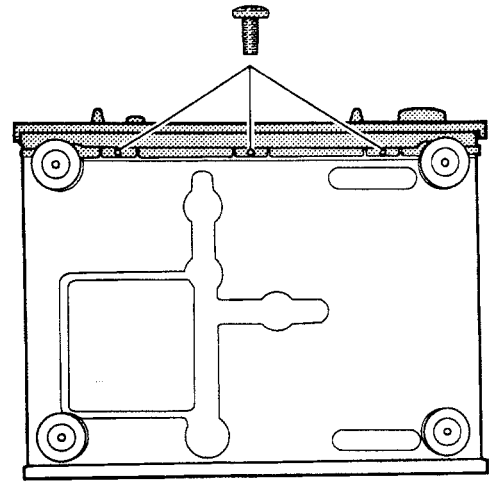
I. DISASSEMBLY

In case of trouble, etc., necessitating dismantling, please dismantle in the order shown in the illustrations.
Reassemble in the reverse order.

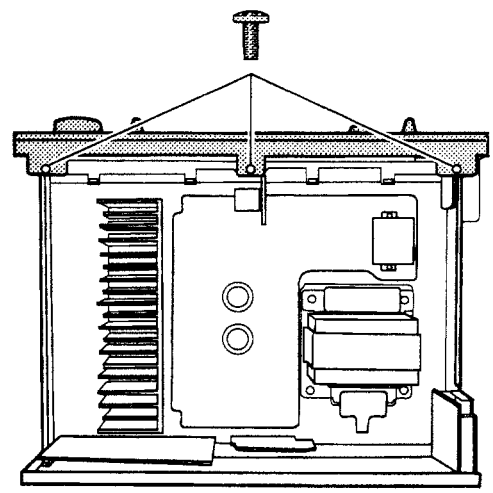
1. Removal of UPPER COVER



2. Removal of FRONT PANEL



Remove the six knobs by pulling them out and disconnect the P726 connector on the BALANCE VR PCB.



II. PRINCIPAL PARTS LOCATION

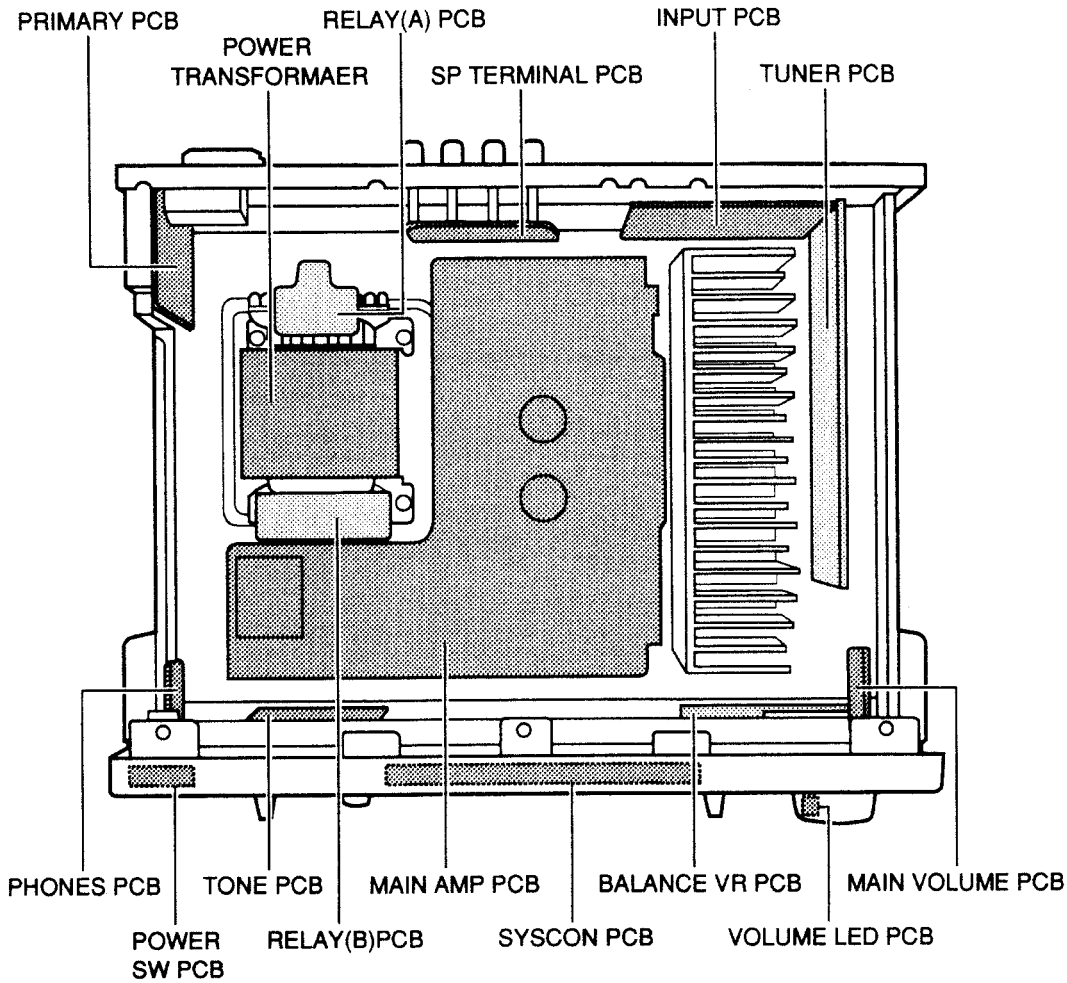


Fig. 2-1

III. ADJUSTMENT

3-1. INSTRUMENT CONNECTIONS

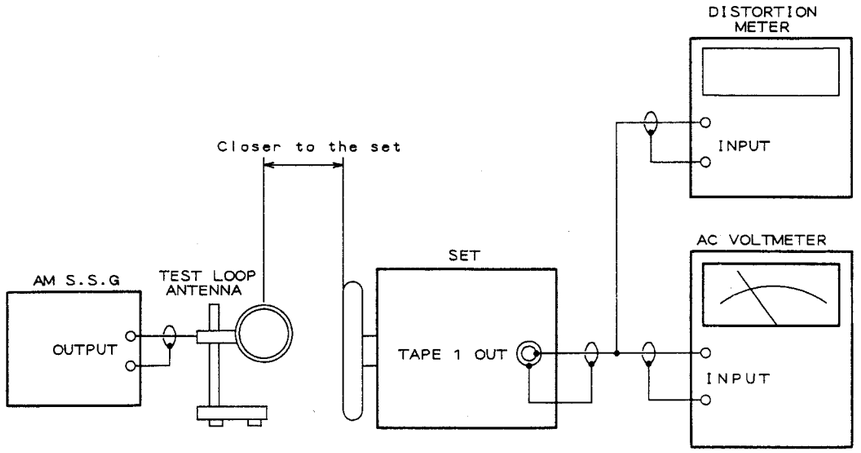


Fig. 3-1 Instrument Connection of AM Adjustment

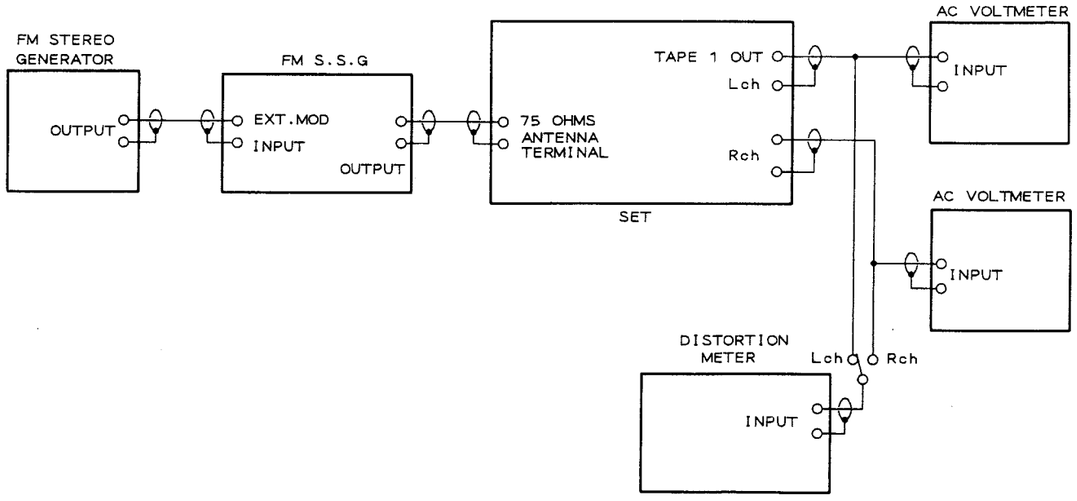


Fig. 3-2 Instrument Connection of FM Adjustment

3-2. HOW TO CALL THE PRESET FREQUENCY FOR THE ADJUSTMENT

Preset frequency can be called with the "TUNER 10 KEY" buttons on the remote control (Press the RESET button on the rear panel first to initialize the previous memory).

The internal frequency preset memory is set as shown below.

CH No.	1 ch	2 ch	3 ch	4 ch	5 ch	6 ch	7 ch	8 ch	9 ch	10 ch
BAND	FM-ST	FM-MN	FM-MN	LW	LW	LW	MW	MW	MW	LW
[V] model	98 MHz	88 MHz	108 MHz	162 kHz	288 kHz	198 kHz	1404 kHz	603 kHz	999 kHz	288 kHz
[E],[B] model	98 MHz	88 MHz	108 MHz	162 kHz	297 kHz	198 kHz	1404 kHz	603 kHz	999 kHz	351 kHz

* FM-ST : FM STEREO (FM AUTO ON)
  FM-MN : FM MONO (FM AUTO OFF)

3-3. ADJUSTMENT

STEP	ADJUSTMENT ITEM
1.	S.S.G. frequency, output level
2.	Tuning frequency
3.	Test point, Adjustment part
4.	Remarks (•) & result (*)

Test point Adjustment part

FM

NOTE: Set the S.S.G. to 1 kHz, 75 kHz deviation for [E] or [B] model.

4 FM STEREO DISTORTION
1. 98.0MHz (MONO), 60 dBμ
2. 98.0 MHz (MONO)
3. TAPE 1 OUT, T101
4. • Connect a distortion meter to the TAPE 1 OUT (Never turn the T101 more than 90°)
   * Minimum distortion.

3 FM MONO SENSITIVITY
1. 98.0 MHz (MONO), 15 dBμ
2. 98.0 MHz (MONO)
3. TAPE 1 OUT, T101
4. • Connect a distortion meter to the TAPE 1 OUT
   * Minimum distortion.

1 FM CENTER VOLTAGE
1. 98.0 MHz (MONO), 60 dBμ
2. 98.0 MHz
3. R110, T102
4. • Connect a DC voltmeter to both ends of R110.
   * 0 mV

2 FM MONO DISTORTION (IF ADJ)
1. 98.0 MHz (MONO), 60 dBμ
2. 98.0 MHz (MONO)
3. TAPE 1 OUT, T103
4. • Connect a distortion meter to the TAPE 1 OUT
   * Minimum distortion.

NOTE : For best results,alternately repeat 1 and 2 adjustment several times.

6 FM SIGNAL METER SENSITIVITY
1. 98.0 MHz (MONO), 30dBμ
2. 98.0 MHz
3. Signal meter on the Front Panel, VR202
4. • Adjust VR202 so that at 30 dBμ, the 5 stages of the signal meter on the front panel light fully, and at 28 dBμ the 5 th stage goes out.

5 STEREO SEPARATION
1. 98.0 MHz, 60dBμ (STEREO L or R channel only)
2. 98.0 MHz
3. TAPE 1 OUT, VR301
4. • Connect an AC milli-voltmeter to the TAPE 1 OUT (Opposite channel of signal input channel).
   * Minimum output level.

MW

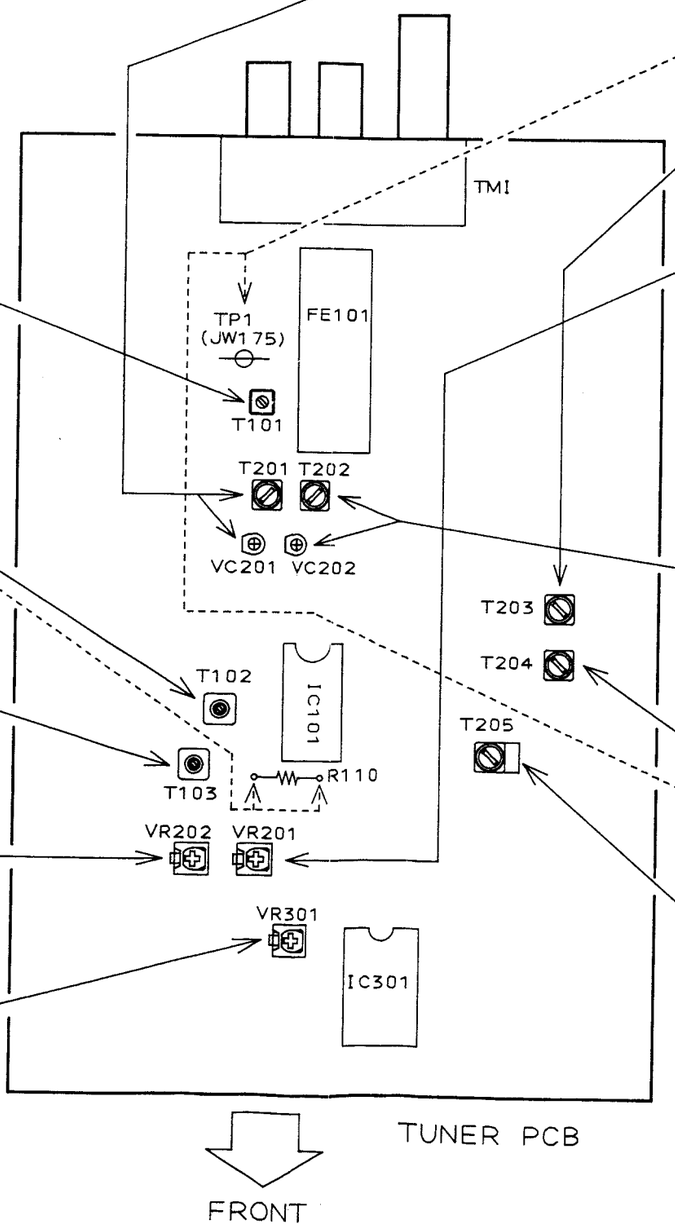
2 MW SENSITIVITY
1. 603 kHz (Low)/1404 kHz (High), 74 dBμ
2. 603 kHz (Low)/1404kHz (High)
3. TAPE 1 OUT, T201 (Low)/VC201 (High)
4. • Connect an AC milli-voltmeter to the TAPE 1 OUT
   * Maximum output level

NOTE : For beat results, alternately repeat low and high adjustment several times.

NOTE : Set the S.S.G. to 1 kHz 30 % modulation on each adjustment.

1 MW OSC
1. NO signal input
2. 1404 kHz
3. JW175, T203
4. • Connect a digital DC voltmeter between JW175 (TP1) and GND.
   * 6.7 V ± 50 mV

3 AM SIGNAL METER SENSITIVITY
1. 198 kHz , 80 dBμ
2. 198 kHz
3. Signal meter on the front panel, VR201
4. • Adjust VR201 so that at 80 dBμ, the 5 stages of the signal meter on the Front Panel light fully.



LW

NOTE : 1. Set the S.S.G. to 1 kHz 30 % modulation on each adjustment.
2. Frequencies indicated in < > are for the [E], [B] models.

2 LW SENSITIVITY
1. 162 kHz (Low)/288 kHz <297 kHz> (High), 74 dBμ
2. 162 kHz (Low)/288 kHz <297 kHz> (High)
3. TAPE 1 OUT, T202 (Low)/VC202 (High)
4. • Connect an AC milli-voltmeter to the TAPE 1 OUT.
   * Maximum output level

NOTE : For best results, alternately repeat low and high adjustment several times.

1 LW OSC
1. NO signal input
2. 288 kHz <351 kHz>
3. JW175, T204
4. • Connect a digital DC voltmeter between JW175 (TP1) and GND.
   * 5.75 V (8.2 V)

3 AM IF
1. 288 kHz, 74 dBμ
2. 288 kHz
3. TAPE 1 OUT, T205
4. • Connect an AC milli-voltmeter to the TAPE 1 OUT.
   * Maximum out put level.

IV. PARTS LIST

ATTENTION

1. When placing an order for parts, be sure to list the Part No., Model No., Name and Description of each part. Otherwise, the non-delivery of the part or the delivery of a wrong part may result.
2. Please make sure that Part No. is correct when ordering.
   If not, a part different from the one you ordered may be delivered.
3. Since the parts listed in this Parts List are for maximum Service Manual number, they are subject to changes, please use this Parts List for all Users reference.

HOW TO USE THIS PARTS LIST

1. This Parts List lists those parts which are considered necessary for repairs. Other common parts, such as resistors and capacitors, are listed in the "Common List for Service Parts" from which these parts should be selected and stocked.
2. The Recommended Spare Parts List shows those parts in the Parts List which are considered particularly important for service.
3. Parts not shown in the Parts List and "Common List for Service Parts" will not in principle be supplied.
4. How to read the Parts List.

a) Mechanism Block

2. HEAD BASE BLOCK

Ref. No.	Part No.	Description
1	BH-T2023A320A	HEAD BASE BLOCK
2	HP-H2206A010A	HEAD R/P PR4-8FU C
3	ZS-477876	PAN20×03STL CMT
4	ZS-536488	BID20×08STL CMT
5	ZG-402895	SP CS ANGLE ADJUST

SP (Service Parts) Classification

This number corresponds with the individual parts index number in that figure.

b) PC Board

6. MAIN PC BOARD

Ref. No.	Part No.	Description
IC1	EI-324536	IC HD14049BP
IC2	EI-336801	IC MB8841-564M
C1A	EC-338399	C MMY V 223M 250AC [U,E,B,S]
C1B	EC-350949	C MMY V 223M 250DC [J]
C1C	EC-338397	C MMY V 223M 125AC [C,A]
X1	EI-318384	OSC X'TAL NC-18C

Symbols for primary destination

[A] :AAL (U.S.A) [S] :SAA (Australia)
[B] :BEAB (England) [U] :U/T (Universal Area)
[C] :CSA (Canada)
[E] :CEE (Europe) [V] :VDE (Germany)
[J] :JPN (Japan) [Y] :Custom Version

SP (Service Parts) Classification

These reference symbols correspond with component symbols in the Schematic Diagrams.

The available PC Board Blocks are listed separately.

5. When Part No. is known, Parts Index at end of Parts List can be used to locate where that part is shown in Parts List by its Reference No.listed at right of Part No.

WARNING

⚠ (※) INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURE'S RECOMMENDED PARTS.

AVERTISSEMENT

⚠ (※) IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉDE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT.

1. RECOMMENDED SPARE PARTS

We suggest you to stock the following Recommended Spare Part items listed below since they can cover most of the routine service.

Ref. No.	Part No.	Description
1	AX-415040M	REMOCON RC-S49
2	*BT-415035M	TRANS POW A1030-BS [AA-39][T901]
3	*BT-415033M	TRANS POW A1030-EV [AA-39][T901]
4	*BT-415038M	TRANS POW A1030S-BS [B]
5	*BT-415037M	TRANS POW A1030S-EV [E,V]
6	*BT-415036M	TRANS POW A1031-EV [AA-49][T901]
7	EC-368118	C DBL LAYER EECS5R5H 224 5.5DC
8	EC-364978	C EC V CUT SME 102M 16.0DC
9	EC-415076J	C EC V SNP USPB35 562M 45.0DC [AA-39]
10	EC-415077J	C EC V SNP USPB40 682M 50.0DC [AA-49]
11	ED-394509J	D LED GL3HY43 ORANGE
12	ED-415085J	D LED SLR-33VC3F RED
13	ED-383034J	D LED SLR-54PC3F L,M GREEN
14	ED-403987J	D LED SLR33MC3F GREEN
15	ED-327057	D SILICON H DS442X
16	ED-307572	D SILICON H 1SS131
17	ED-624903	D SILICON H 1S2473
18	*ED-384278J	D SILICON RBV602 200/6.0A
19	*ED-511907	D SILICON 1N4002 100/1.0A
20	ED-372893	D VARACTOR SVC321SPA A DBL
21	ED-396065J	D ZENER H HZS12C1
22	ED-400166J	D ZENER H HZS3B2
23	*ED-343421	D ZENER H HZ16-2L
24	ED-330219	D ZENER H HZ20-2L
25	ED-415106J	D ZENER H HZ24-2L T26
26	ED-306010	D ZENER H HZ6 A2
27	*ED-346528	D ZENER H HZ6C1L
28	*ED-346529	D ZENER H HZ6C2L
29	EE-415058J	FRONT END FE417-G04
30	*EF-415060J	FUSE S504 T 250V 630MA
31	*EF-415061J	FUSE S506 T 250V 2.50A
32	EI-361624	IC LA1265
33	EI-415073J	IC LA3401
34	EI-416515J	IC LC7073M
35	EI-415074J	IC LC7821N
36	EI-361622	IC LM7001
37	*EI-393323J	IC M5218AL-771
38	EI-393325J	IC M5218AP
39	EI-408672J	IC S-80721AN
40	EI-415159J	IC SAA6579T
41	EI-416841J	IC TMP47C870N-V497 A1030-1
42	EI-349970	OSC CE CSB456F11 0.456MHZ
43	EI-382875J	OSC CE CST4.00MGW 4MHZ
44	EI-367882J1	OSC CE FCR4.19MC3 4.190MHZ
45	EI-408814M	OSC X'TAL HC-49/U 7200KHZ
46	EI-416694M	OSC X'TAL HC-49/U-S 4.33200MHZ
47	*EJ-415049J	SOCKET OUT M1859 2P [E,V]
48	EM-415082J	IND FL FIP12CGM7 CHARACTER
49	*EQ-415055J	RELAY POW VS-6MB 1NO 6V
50	EQ-403529J1	RELAY POW 12S MBU524UL3 2NO12V
51	*ER-341493	R FUSE H S10 ERD2FC 1/4W 1001G
52	ES-415097J	SW PUSH SPEC33 3THROW *
53	ES-415087J	SW PUSH SPUL21 2THROW N
54	ES-415100J	SW ROTARY SRBV14 01-04N [AA-49]
55	ES-415099J	SW ROTARY SRBV22 02-02N
56	ES-362883	SW TACT SKHHLM
57	ES-394427J	SW TACT SOR-133HS T05
58	ET-403432J	DETECTOR SPS-420-1
59	ET-356336	TR DTA114ES
60	ET-369248	TR DTA114YS
61	ET-354415	TR DTA144ES
62	ET-353897	TR DTC114ES
63	ET-354365	TR DTC114YS
64	ET-354364	TR DTC143TS
65	ET-373391	TR DTC143ZS
66	ET-354094	TR DTC144WS
67	ET-322353	TR FET 2SK117 Y
68	ET-349458	TR FET 2SK192A Y
69	ET-337759	TR FET 2SK246 GR
70	ET-375780	TR FET 2SK381 E F05
71	*ET-345626	TR 2SA1248 S,T
72	ET-353899	TR 2SA1317 S,T,U
73	*ET-352726	TR 2SA1392 T,U [AA-39]
74	*ET-368757	TR 2SA1490 P,Y
75	*ET-305463	TR 2SA970 GR,BL [AA-49]
76	*ET-307195	TR 2SC2240 GR,BL [AA-49]
77	*ET-345625	TR 2SC3116 S,T
78	ET-397160J	TR 2SC3330 R,S,T,U,V
79	*ET-378524J	TR 2SC3383 S,T,U [AA-39]
80	ET-394735J	TR 2SC3792 T05
81	*ET-368759	TR 2SC3854 P,Y
82	ET-356437	TR 2SC930 D2,E,F
83	*ET-376880	TR 2SD1266 P
84	ET-396072J	TR 2SD2159 V,W
85	EV-401270J	VR ROTARY RK16312 B103X2
86	EV-403534J	VR ROTARY RK1631220 SPL W104
87	EV-415032M	VR SPL EUWM HD003 B15 B104X2

2. P.C BOARD BLOCK

Ref. No.	Part No.	Description
1-A	BA-A1030T020A	ML PC (#) MAIN BLK AA-39 (E)/ML
1-B	BA-A1030T020B	ML PC (#) MAIN BLK AA-39 (V)/ML
1-C	BA-A1030T020C	ML PC (#) MAIN BLK AA-39 (B)/ML
1-D	BA-A1030T020D	ML PC (#) MAIN BLK AA-49 (E)/ML
1-E	BA-A1030T020E	ML PC (#) MAIN BLK AA-49 (V)/ML
2-A	BA-A1030T030A	ML PC (#) TU-PRE BLK AA-39 (E)/ML [E,B]
2-B	BA-A1030T030B	ML PC (#) TU-PRE BLK AA-39 (V)/ML
2-C	BA-A1030T030C	ML PC (#) TU-PRE BLK AA-49 (E)/ML
2-D	BA-A1030T030D	ML PC (#) TU-PRE BLK AA-49 (V)/ML

PC (#) MAIN BLK CONSISTS OF FOLLOWING P.C BOARDS.
- MAIN AMP P.C BOARD
- PRIMARY P.C BOARD
- SP TERMINAL P.C BOARD
- PHONES P.C BOARD

PC (#) TU-PRE BLK CONSISTS OF FOLLOWING P.C BOARDS.
- TUNER P.C BOARD
- INPUT P.C BOARD
- TONE P.C BOARD
- BALANCE VOLUME P.C BOARD
- MAIN VOLUME P.C BOARD
- VOLUME LED P.C BOARD
- SYSCON P.C BOARD
- POWER SW P.C BOARD

3. MAIN AMP P.C. BOARD

Ref. No.	Part No.	Description
C150-A	EC-415076J	C EC V SNP USPB35 562M 45.0DC [AA-39]
C150-B	EC-415077J	C EC V SNP USPB40 682M 50.0DC [AA-49]
C151-A	EC-415076J	C EC V SNP USPB35 562M 45.0DC [AA-39]
C151-B	EC-415077J	C EC V SNP USPB40 682M 50.0DC [AA-49]
C159	EC-364978	C EC V CUT SME 102M 16.0DC
D103	ED-327057	D SILICON H DS442X
D104	ED-327057	D SILICON H DS442X
D105	*ED-327057	D SILICON H DS442X
D106	ED-307572	D SILICON H 1SS131
D107	ED-307572	D SILICON H 1SS131
D108	ED-624903	D SILICON H 1S2473
D109	ED-307572	D SILICON H 1SS131
D110	ED-307572	D SILICON H 1SS131
D111	ED-624903	D SILICON H 1S2473
D112	ED-330219	D ZENER H HZ20-2L
D113	*ED-346528	D ZENER H HZ6C1L
D150	*ED-384278J	D SILICON RBV602 200/6.0A
D151	*ED-511907	D SILICON 1N4002 100/1.0A
D152	*ED-511907	D SILICON 1N4002 100/1.0A
D153	*ED-511907	D SILICON 1N4002 100/1.0A
D154	*ED-511907	D SILICON 1N4002 100/1.0A
D155	ED-327057	D SILICON H DS442X
D156	ED-327057	D SILICON H DS442X
D157	ED-327057	D SILICON H DS442X
D158	ED-327057	D SILICON H DS442X
D159	*ED-343421	D ZENER H HZ16-2L
D160	*ED-343421	D ZENER H HZ16-2L
D161	*ED-511907	D SILICON 1N4002 100/1.0A
D162	*ED-511907	D SILICON 1N4002 100/1.0A
D163	*ED-511907	D SILICON 1N4002 100/1.0A
D164	*ED-511907	D SILICON 1N4002 100/1.0A
D165	ED-327057	D SILICON H DS442X
D166	ED-327057	D SILICON H DS442X
D167	*ED-346529	D ZENER H HZ6C2L
D170	ED-383034J	D LED SLR-54PC3F L,M GREEN
D180	ED-511907	D SILICON 1N4002 100/1.0A
D181	ED-511907	D SILICON 1N4002 100/1.0A
D182	ED-415106J	D ZENER H HZ24-2L T26
D203	ED-327057	D SILICON H DS442X
D204	ED-327057	D SILICON H DS442X
D205	*ED-327057	D SILICON H DS442X
D206	ED-307572	D SILICON H 1SS131
D207	ED-307572	D SILICON H 1SS131
D270	ED-383034J	D LED SLR-54PC3F L,M GREEN
FR101	*ER-341493	R FUSE H S10 ERD2FC 1/4W 1001G
FR102	*ER-341493	R FUSE H S10 ERD2FC 1/4W 1001G
FR201	*ER-341493	R FUSE H S10 ERD2FC 1/4W 1001G
FR202	*ER-341493	R FUSE H S10 ERD2FC 1/4W 1001G
IC101	*EI-393323J	IC M5218AL-771
L101	EO-403613J	COIL FIX 2 202AK-018A 2R2K
L102	*EO-345874	COIL FIX 1 EL0606SKI 330J [AA-39]
L201	EO-403613J	COIL FIX 2 202AK-018A 2R2K
R115	*ER-382613J	R CB H S10FLR RDS 1/4W 331J
R118	*ER-382613J	R CB H S10FLR RDS 1/4W 331J
R120	*ER-382613J	R CB H S10FLR RDS 1/4W 331J
R122	*ER-378514J	R OMF H S12 FS 1W 8R2J
R123	*ER-378514J	R OMF H S12 FS 1W 8R2J
R125	*ER-368284	R OMF H S12 FS 1W 271J
R126	*ER-353877	R OMF H S15 FS 1W 1R0J
R127	*ER-353877	R OMF H S15 FS 1W 1R0J
R128	ER-324480	R CB H S10 FS RDS 1/4W 470J
R129	ER-324480	R CB H S10 FS RDS 1/4W 470J
R130	*ER-368226	R CT P R33+R33 5W
R131	*ER-333119	R OMF H S20 FS 2W 560J
R132	*ER-411836J	R OMF H S15 FS 2W 1R0J
R162	*ER-200939	R CB H S10 FS RDS 1/4W 181J
R163	*ER-200939	R CB H S10 FS RDS 1/4W 181J
R166	*ER-378833J	R CB H S10FLR RDS 1/4W 220J
R169	*ER-378833J	R CB H S10FLR RDS 1/4W 220J
R175	*ER-328069	R CB H S10 FS RDS 1/4W 2R7J
R181	ER-378608J	R OMF H S12 FS 1W 152J
R182	*ER-328069	R CB H S10 FS RDS 1/4W 2R7J
R215	*ER-382613J	R CB H S10FLR RDS 1/4W 331J
R218	*ER-382613J	R CB H S10FLR RDS 1/4W 331J
R220	*ER-382613J	R CB H S10FLR RDS 1/4W 331J

Ref. No.	Part No.	Description
R222	*ER-378514J	R OMF H S12 FS 1W 8R2J
R223	*ER-378514J	R OMF H S12 FS 1W 8R2J
R225	*ER-368284	R OMF H S12 FS 1W 271J
R226	*ER-353877	R OMF H S15 FS 1W 1R0J
R227	*ER-353877	R OMF H S15 FS 1W 1R0J
R230	*ER-368226	R CT P R33+R33 5W
R231	*ER-333119	R OMF H S20 FS 2W 560J
R232	*ER-411836J	R OMF H S15 FS 2W 1R0J
RL101	EQ-403529J1	RELAY POW 12S MBU524UL3 2NO12V
T101-A	*BT-415037M	TRANS POW A1030S-EV [E,V]
T101-B	*BT-415038M	TRANS POW A1030S-BS [B]
TR101	ET-322353	TR FET 2SK117 Y
TR102-A	*ET-378524J	TR 2SC3383 S,T,U [AA-39]
TR102-B	*ET-307195	TR 2SC2240 GR,BL [AA-49]
TR103-A	*ET-378524J	TR 2SC3383 S,T,U [AA-39]
TR103-B	*ET-307195	TR 2SC2240 GR,BL [AA-49]
TR104-A	ET-378524J	TR 2SC3383 S,T,U [AA-39]
TR104-B	ET-307195	TR 2SC2240 GR,BL [AA-49]
TR105-A	*ET-352726	TR 2SA1392 T,U [AA-39]
TR105-B	*ET-305463	TR 2SA970 GR,BL [AA-49]
TR106-A	*ET-352726	TR 2SA1392 T,U [AA-39]
TR106-B	*ET-305463	TR 2SA970 GR,BL [AA-49]
TR107	*ET-305463	TR 2SA970 GR,BL
TR108	ET-305463	TR 2SA970 GR,BL
TR109	*ET-307195	TR 2SC2240 GR,BL
TR110	*ET-378524J	TR 2SC3383 S,T,U
TR111	*ET-378524J	TR 2SC3383 S,T,U
TR112	*ET-352726	TR 2SA1392 T,U
TR113	*ET-345625	TR 2SC3116 S,T
TR114	*ET-345626	TR 2SA1248 S,T
TR115	*ET-368759	TR 2SC3854 P,Y
TR116	*ET-368757	TR 2SA1490 P,Y
TR117	ET-305463	TR 2SA970 GR,BL
TR118	ET-397160J	TR 2SC3330 R,S,T,U,V
TR119	ET-353899	TR 2SA1317 S,T,U
TR120	ET-397160J	TR 2SC3330 R,S,T,U,V
TR121	ET-397160J	TR 2SC3330 R,S,T,U,V
TR122	ET-397160J	TR 2SC3330 R,S,T,U,V
TR123	ET-397160J	TR 2SC3330 R,S,T,U,V
TR150	ET-352726	TR 2SA1392 T,U
TR151	*ET-376880	TR 2SD1266 P
TR152	ET-378524J	TR 2SC3383 S,T,U
TR153	*ET-345626	TR 2SA1248 S,T
TR154	ET-352726	TR 2SA1392 T,U
TR155	*ET-345625	TR 2SC3116 S,T
TR156	ET-397160J	TR 2SC3330 R,S,T,U,V
TR157	ET-378524J	TR 2SC3383 S,T,U
TR158	*ET-345625	TR 2SC3116 S,T
TR201	ET-322353	TR FET 2SK117 Y
TR202-A	*ET-378524J	TR 2SC3383 S,T,U [AA-39]
TR202-B	*ET-307195	TR 2SC2240 GR,BL [AA-49]
TR203-A	*ET-378524J	TR 2SC3383 S,T,U [AA-39]
TR203-B	*ET-307195	TR 2SC2240 GR,BL [AA-49]
TR204-A	*ET-378524J	TR 2SC3383 S,T,U [AA-39]
TR204-B	*ET-307195	TR 2SC2240 GR,BL [AA-49]
TR205-A	*ET-352726	TR 2SA1392 T,U [AM-39]
TR205-B	*ET-305463	TR 2SA970 GR,BL [AA-49]
TR206-A	*ET-352726	TR 2SA1392 T,U [AA-39]
TR206-B	*ET-305463	TR 2SA970 GR,BL [AA-49]
TR207	*ET-305463	TR 2SA970 GR,BL
TR208	ET-305463	TR 2SA970 GR,BL
TR209	*ET-307195	TR 2SC2240 GR,BL
TR210	*ET-378524J	TR 2SC3383 S,T,U
TR211	*ET-378524J	TR 2SC3383 S,T,U
TR212	*ET-352726	TR 2SA1392 T,U
TR213	*ET-345625	TR 2SC3116 S,T
TR214	*ET-345626	TR 2SA1248 S,T
TR215	*ET-368759	TR 2SC3854 P,Y
TR216	*ET-368757	TR 2SA1490 P,Y
TR217	ET-305463	TR 2SA970 GR,BL
F2	*EF-415060J	FUSE S504 T 250V 630MA
F3	*EF-415060J	FUSE S504 T 250V 630MA

4. PRIMARY P.C. BOARD

Ref. No.	Part No.	Description
C301	*EC-338496	C CE V DE7100 FZ 472P 400AC
D301	ED-624903	D SILICON H 1S2473
J302	*EJ-415049J	SOCKET OUT M1859 2P [E,V]
L301	*EO-403613J	COIL FIX 2 202AK-018A 2R2K
L302	*EO-403613J	COIL FIX 2 202AK-018A 2R2K
RL301	*EQ-415055J	RELAY POW VS-6MB 1NO 6V
F1	*EF-415061J	FUSE S506 T 250V 2.50A

5. SP TERMINAL P.C. BOARD

Ref. No.	Part No.	Description
TM401	EJ-342935	TERMINAL W/SCREW YKD31-0132P8P

6. PHONES P.C. BOARD

Ref. No.	Part No.	Description
J501	EJ-391132J	PHONE J 3P YKB24-5162 GP 63
R501	*ER-333108	R OMF H S20 FS 2W 471J
R551	*ER-333108	R OMF H S20 FS 2W 471J
SW501	ES-415087J	SW PUSH SPUL21 2THROW N

7. TUNER P.C. BOARD

Ref. No.	Part No.	Description
D201	ED-372893	D VARACTOR SVC321SPA A DBL
D202	ED-372893	D VARACTOR SVC321SPA A DBL
D205	ED-307572	D SILICON H 1SS131
D206	ED-307572	D SILICON H 1SS131
D301	ED-307572	D SILICON H 1SS131
D302	ED-307572	D SILICON H 1SS131
D303	ED-396065J	D ZENER H HZS12C1
D401	ED-306010	D ZENER H HZ6 A2
D402	ED-307572	D SILICON H 1SS131
FE101	EE-415058J	FRONT END FE417-G04
FL102-A	EH-394759J	FILTER CE SFE10.7MS2GK-A [E]
FL102-B	EH-338338	FILTER CE SFE10.7MS3GK-A [V]
FL103-A	EH-394759J	FILTER CE SFE10.7MS2GK-A [E]
FL103-B	EH-338338	FILTER CE SFE10.7MS3GK-A [V]
FL104	EH-405199J	FILTER LC LP K7-J1YD-0170 [V]
FL201	EH-344434	FILTER CE BFU450C4N 0.450MHZ
FL301	EH-370069	FILTER LC LP 42B-1081-00
FL302	EH-370069	FILTER LC LP 42B-1081-00
IC101	EI-361624	IC LA1265
IC301	EI-415073J	IC LA3401
IC401	EI-361622	IC LM7001
L301	EO-353588	COIL FIX 1 LAP02 F05 2R2K [V]
L302	EO-353588	COIL FIX 1 LAP02 F05 2R2K [V]
T101	EO-416498J	COIL IFT K7-H5 10.7MHZ
T102	EO-416500J	COIL DET 2 134-5250-03
T103	EO-416499J	COIL DET 2 134-5251-01
T201	EO-416501M	COIL VARI 2 MRHNF-45669A
T202	EO-416502M	COIL VARI 2 MRZNF-45670A
T203	EO-363279	COIL OSC 2 A7NRS-9857X 150.0UH
T204	EO-352089	COIL OSC 2 7BRS-9098X 580.0UH
T205	EO-408687J	COIL IFT BCFAZ-024
TM1	EJ-359031	TERMINAL LEVER YKD31-0215 P 2P
TR101	ET-356437	TR 2SC930 D2,E,F
TR201	ET-349458	TR FET 2SK192A Y
TR202	ET-394735J	TR 2SC3792 T05
TR203	ET-353897	TR DTC114ES
TR302	ET-396072J	TR 2SD2159 V,W
TR303	ET-354094	TR DTC144WS
TR304	ET-354094	TR DTC144WS
TR305	ET-356336	TR DTA114ES
TR306	ET-378524J	TR 2SC3383 S,T,U
TR307	ET-378524J	TR 2SC3383 S,T,U
TR308	ET-354364	TR DTC143TS
TR309	ET-354364	TR DTC143TS
TR401	ET-337759	TR FET 2SK246 GR
TR402	ET-397160J	TR 2SC3330 R,S,T,U,V
TR403	ET-354094	TR DTC144WS
TR404	ET-354094	TR DTC144WS
TR405	ET-353899	TR 2SA1317 S,T,U
TR406	ET-353899	TR 2SA1317 S,T,U
TR407	ET-397160J	TR 2SC3330 R,S,T,U,V
TS1	ES-362883	SW TACT SKHHLM
VC201	EC-337603	C S-FIX H VCT51F 5.5-30
VC202	EC-356284	C S-FIX H VCT51G 7.5- 50
VR201	EV-389479J	R S-FIX H T05EVNDXAA03 0.1W223
VR202	EV-389481J	R S-FIX H T05EVNDXAA03 0.1W473
VR301	EV-389477J	R S-FIX H T05EVNDXAA03 0.1W104
X301	EI-349970	OSC CE CSB456F11 0.456MHZ
X401	EI-408814M	OSC X'TAL HC-49/U 7200KHZ

8. INPUT P.C. BOARD

Ref. No.	Part No.	Description
D501	ED-307572	D SILICON H 1SS131
D502	ED-307572	D SILICON H 1SS131
D551	ED-307572	D SILICON H 1SS131
D552	ED-307572	D SILICON H 1SS131
D581	ED-307572	D SILICON H 1SS131
D582	ED-307572	D SILICON H 1SS131
IC501	EI-393325J	IC M5218AP
IC502	EI-415074J	IC LC7821N
J501	EJ-384270J	PIN J T6227-AACB 2P
J502	EJ-368244	PIN J T6087 6P
J503	EJ-368244	PIN J T6087 6P
TR501	ET-375780	TR FET 2SK381 E F05
TR502	ET-375780	TR FET 2SK381 E F05
TR503	ET-375780	TR FET 2SK381 E F05
TR504	ET-378524J	TR 2SC3383 S,T,U
TR505	ET-378524J	TR 2SC3383 S,T,U [AA-49]
TR506	ET-378524J	TR 2SC3383 S,T,U
TR507	ET-378524J	TR 2SC3383 S,T,U [AA-49]
TR551	ET-375780	TR FET 2SK381 E F05
TR552	ET-375780	TR FET 2SK381 E F05
TR553	ET-375780	TR FET 2SK381 E F05
TR554	ET-378524J	TR 2SC3383 S,T,U
TR555	ET-378524J	TR 2SC3383 S,T,U [AA-49]
TR556	ET-378524J	TR 2SC3383 S,T,U
TR557	ET-378524J	TR 2SC3383 S,T,U [AA-49]
TR581	ET-354094	TR DTC144WS
TR582	ET-354415	TR DTA144ES
TR583	ET-354094	TR DTC144WS
TR584	ET-354415	TR DTA144ES
TR585	ET-354415	TR DTA144ES

9. TONE P.C. BOARD

Ref. No.	Part No.	Description
D681	ED-400166J	D ZENER H HZS3B2
IC601	EI-393325J	IC M5218AP
IC602	EI-393325J	IC M5218AP
SW601	ES-415099J	SW ROTARY SRBV22 02-02N
VR601	EV-401270J	VR ROTARY RK16312 B103X2
VR602	EV-401270J	VR ROTARY RK16312 B103X2

10. BALANCE VOLUME P.C. BOARD

Ref. No.	Part No.	Description
TR781	ET-353899	TR 2SA1317 S,T,U
TR782	ET-353899	TR 2SA1317 S,T,U
TR783	ET-397160J	TR 2SC3330 R,S,T,U,V
TR784	ET-397160J	TR 2SC3330 R,S,T,U,V
TR785	ET-373391	TR DTC143ZS
TR786	ET-354415	TR DTA144ES
SW701	ES-415097J	SW PUSH SPEC33 3THROW *
SW702	ES-415100J	SW ROTARY SRBV14 01-04N [AA-49]
VR701	EV-403534J	VR ROTARY RK1631220 SPL W104

11. MAIN VOLUME P.C. BOARD

Ref. No.	Part No.	Description
TR701	ET-378524J	TR 2SC3383 S,T,U
TR702	ET-378524J	TR 2SC3383 S,T,U
TR751	ET-378524J	TR 2SC3383 S,T,U
TR752	ET-378524J	TR 2SC3383 S,T,U
VR702	EV-415032M	VR SPL EUWM HD003 B15 B104X2

12. VOLUME LED P.C. BOARD

Ref. No.	Part No.	Description
D702	ED-394509J	D LED GL3HY43 ORANGE

13. SYSCON P.C. BOARD

Ref. No.	Part No.	Description
C803	EC-368118	C DBL LAYER EECS5R5H 224 5.5DC
D801	ED-624903	D SILICON H 1S2473
D802	ED-307572	D SILICON H 1SS131
D803	ED-307572	D SILICON H 1SS131
D804	ED-624903	D SILICON H 1S2473
D805	ED-624903	D SILICON H 1S2473
D806	ED-624903	D SILICON H 1S2473
D807	ED-624903	D SILICON H 1S2473
D808	ED-624903	D SILICON H 1S2473
D809	ED-624903	D SILICON H 1S2473
D810	ED-624903	D SILICON H 1S2473
D811	ED-624903	D SILICON H 1S2473
D812	ED-624903	D SILICON H 1S2473
D813	ED-624903	D SILICON H 1S2473
D814	ED-624903	D SILICON H 1S2473
D815	ED-624903	D SILICON H 1S2473
D816	ED-624903	D SILICON H 1S2473
IB801	EH-418515J	COMP R RGLD6T 472J
IB802	EH-418516J	COMP R RGLE5T 472J
IC801	EI-408672J	IC S-80721AN
IC802	EI-416841J	IC TMP47C870N-V497 A1030-1
IC803	EI-415159J	IC SAA6579T
IC804	EI-416515J	IC LC7073M
IN801	EM-415082J	IND FL FIP12CGM7 CHARACTER
PH801	ET-403432J	DETECTOR SPS-420-1
TR801	ET-354365	TR DTC114YS
TR802	ET-354365	TR DTC114YS
TR803	ET-354365	TR DTC114YS
TR804	ET-397160J	TR 2SC3330 R,S,T,U,V
TR805	ET-354365	TR DTC114YS
TR806	ET-397160J	TR 2SC3330 R,S,T,U,V
TR807	ET-354415	TR DTA144ES
TR808	ET-369248	TR DTA114YS
TS801	ES-394427J	SW TACT SOR-133HS T05
TS802	ES-394427J	SW TACT SOR-133HS T05
TS803	ES-394427J	SW TACT SOR-133HS T05
TS804	ES-394427J	SW TACT SOR-133HS T05
TS805	ES-394427J	SW TACT SOR-133HS T05
TS806	ES-394427J	SW TACT SOR-133HS T05
TS807	ES-394427J	SW TACT SOR-133HS T05
TS808	ES-394427J	SW TACT SOR-133HS T05
TS809	ES-394427J	SW TACT SOR-133HS T05
TS810	ES-394427J	SW TACT SOR-133HS T05
TS811	ES-394427J	SW TACT SOR-133HS T05
TS812	ES-394427J	SW TACT SOR-133HS T05
TS813	ES-394427J	SW TACT SOR-133HS T05
TS814	ES-394427J	SW TACT SOR-133HS T05
TS815	ES-394427J	SW TACT SOR-133HS T05
TS816	ES-394427J	SW TACT SOR-133HS T05
TS817	ES-394427J	SW TACT SOR-133HS T05
TS818	ES-394427J	SW TACT SOR-133HS T05
TS819	ES-394427J	SW TACT SOR-133HS T05
TS820	ES-394427J	SW TACT SOR-133HS T05
TS821	ES-394427J	SW TACT SOR-133HS T05
TS822	ES-394427J	SW TACT SOR-133HS T05
TS823	ES-394427J	SW TACT SOR-133HS T05
TS824	ES-394427J	SW TACT SOR-133HS T05
X801	EI-367882J1	OSC CE FCR4.19MC3 4.190MHZ
X802	EI-416694M	OSC X'TAL HC-49/U-S 4.33200MHZ
X803	EI-382875J	OSC CE CST4.00MGW 4MHZ

14. POWER SW P.C. BOARD

Ref. No.	Part No.	Description
D851	ED-415085J	D LED SLR-33VC3F RED
D852	ED-403987J	D LED SLR33MC3F GREEN
D853	ED-403987J	D LED SLR33MC3F GREEN
TS851	ES-394427J	SW TACT SOR-133HS T05

15. FINAL ASSEMBLY BLOCK

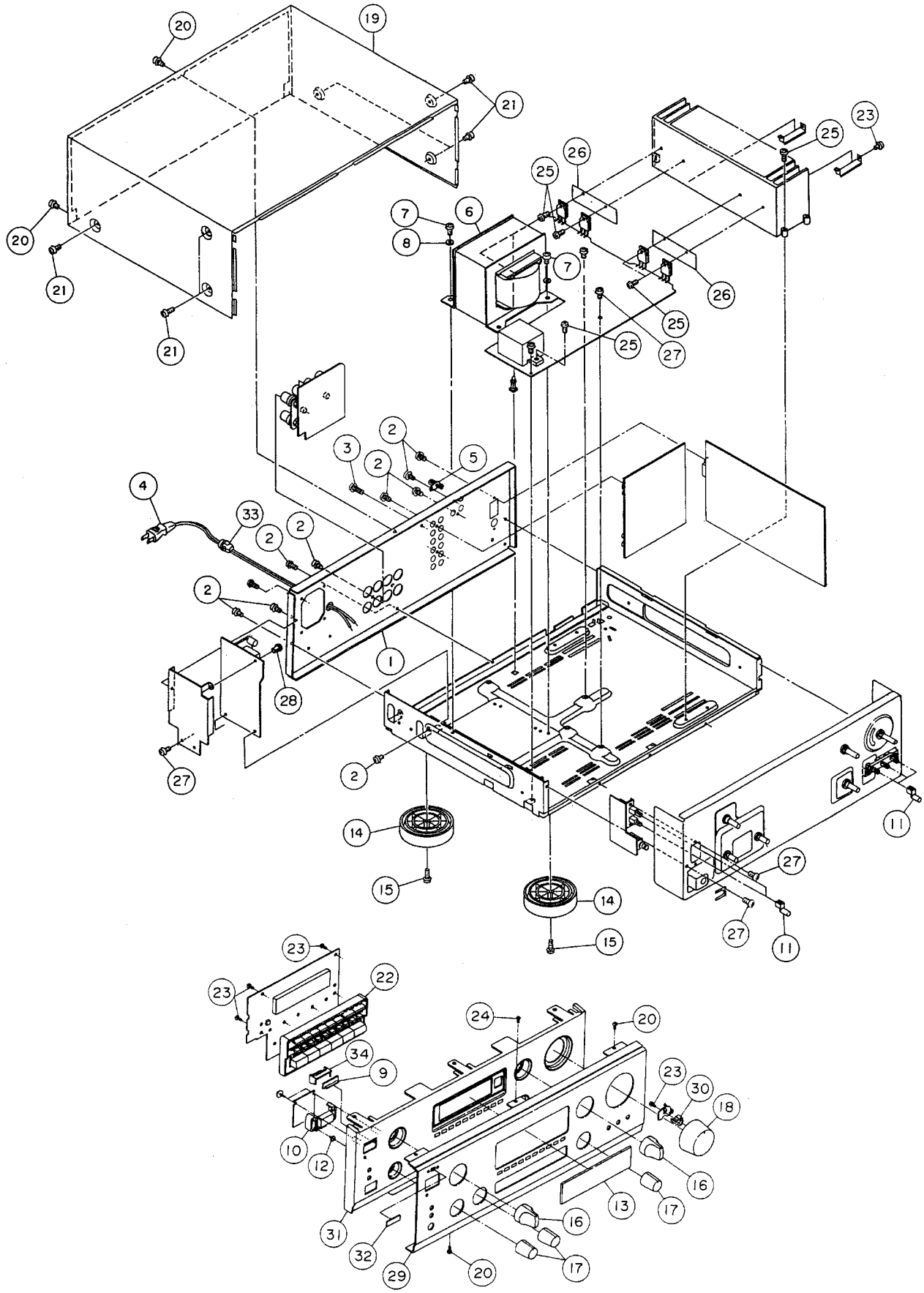
Ref. No.	Part No.	Description
1-A	SP-415172M	PANEL REAR AA-39 (E) (SG)
1-B	SP-415173M	PANEL REAR AA-39 (V) (SG)
1-C	SP-415174M	PANEL REAR AA-39 (B) (SG)
1-D	SP-415175M	PANEL REAR AA-49 (E) (SG)
1-E	SP-415176M	PANEL REAR AA-49 (V) (SG)
2	ZS-394412J	BT BID30X08STL BZN PROJECTION
3	ZS-418383J	T2PAN30X16STL NI3 [V]
4-A	*EW-408724M	AC CORD200 SE1H03VVH2F VHR3N E [E,V]
4-B	*EW-415021M	AC CORD 200 SE-5VCTFK VHR3NB [B]
5	EJ-329610	TERMINAL W/SCREW UB-0067 L 1P
6-A	*BT-415033M	TRANS POW A1030-EV [AA-39][T901]
6-B	*BT-415035M	TRANS POW A1030-BS [AA-39][T901]
6-C	*BT-415036M	TRANS POW A1031-EV [AA-49][T901]
7	ZS-346742	ST BID40X08STL CMT CUP
8	ZW-410640J	SW40STL CMT
9	SE-373237J1	LENS POW
10	SB-415182M	BUTTON POWER (SG)
11	SK-402898J	BUTTON PUSH-B
12	SE-410963M	LENS LED (SG)
13	SE-415179J	WINDOW
14	SA-379375	FOOT (N)
15	ZS-336714	ST BID30X12STL CMT
16	SK-415178M	KNOB SELECTOR (SG)
17	SK-415180M	KNOB TONE (SG)
18	SK-414260M	KNOB VR (SG)
19	SP-391360J1	COVER UPPER B
20	ZS-393644J	ST BID30X08STL BZN PROJECT
21	ZS-404225J	ST BID40X08STL BZN
22	SB-415183M	BUTTON INPUT (SG)
23	ZS-394414J	BT BID30X08STL BZN
24	ZS-336611	ST CTS30X08STL CMT
25	ZS-395789J	BT BID30X16STL BZN
26	EZ-401261J	INSULATOR TBM-F FB-20
27	ZS-358936	ST BID30X06STL CMT
28	ZW-698308	RV NYL30X055 BL
29-A	SP-415166J	PANEL FRONT AA-39
29-B	SP-415167J	PANEL FRONT AA-49
30	SE-407867M	LENS VR (SG)
31-A	SE-415169M	ESCUTCHEON FRONT AA-39 (SG)
31-B	SE-415171M	ESCUTCHEON FRONT AA-49 (SG)
32	SM-365756C	NAME PLATE AKAI (2)
33	EZ-371605	BUSH CORD 2271
34	SE-373256	CASE LED

NOTE:
Parts will not be supplied if they are not listed in the parts list, even if they appear on the assembling illustrations with reference No.

16. ACCESSARY

Ref. No.	Part No.	Description
1	AX-415040M	REMOCON RC-S49
2	AX-415039M	ANT LOOP WAU0990-0172M
3	EE-396107M	ANT WIRE FM A3063
4	EJ-394417J	SOCKET COAX HXC 0526-01-010

FINAL ASSEMBLY BLOCK



INDEX

Part No.	Ref. No.	Part No.	Ref. No.	Part No.	Ref. No.	Part No.	Ref. No.
AX415039M	16-2	ED403987J	14-D852	EJ394417J	16-4	ES394427J	13-TS813
AX415040M	16-1	ED403987J	14-D853	EJ415049J	4-J302	ES394427J	13-TS814
BAA1030T020A	2-1-A	ED415085J	14-D851	EM415082J	13-IN801	ES394427J	13-TS815
BAA1030T020B	2-1-B	ED415106J	3-D182	EO345874	3-L102	ES394427J	13-TS816
BAA1030T020C	2-1-C	ED511907	3-D151	EO352089	7-T204	ES394427J	13-TS817
BAA1030T020D	2-1-D	ED511907	3-D152	EO353588	7-L301	ES394427J	13-TS818
BAA1030T020E	2-1-E	ED511907	3-D153	EO353588	7-L302	ES394427J	13-TS819
BAA1030T030A	2-2-A	ED511907	3-D154	EO363279	7-T203	ES394427J	13-TS820
BAA1030T030B	2-2-B	ED511907	3-D161	EO403613J	3-L101	ES394427J	13-TS821
BAA1030T030C	2-2-C	ED511907	3-D162	EO403613J	3-L201	ES394427J	13-TS822
BAA1030T030D	2-2-D	ED511907	3-D163	EO403613J	4-L301	ES394427J	13-TS823
BT415033M	15-6-A	ED511907	3-D164	EO403613J	4-L302	ES394427J	13-TS824
BT415035M	15-6-B	ED511907	3-D180	EO408687J	7-T205	ES394427J	14-TS851
BT415036M	15-6-C	ED511907	3-D181	EO416498J	7-T101	ES415087J	6-SW501
BT415037M	3-T101-A	ED624903	3-D108	EO416499J	7-T103	ES415097J	10-SW701
BT415038M	3-T101-B	ED624903	3-D111	EO416500J	7-T102	ES415099J	9-SW601
EC337603	7-VC201	ED624903	4-D301	EO416501M	7-T201	ES415100J	10-SW702
EC338496	4-C301	ED624903	13-D801	EO416502M	7-T202	ET305463	3-TR105-B
EC356284	7-VC202	ED624903	13-D804	EQ403529J1	3-RL101	ET305463	3-TR106-B
EC364978	3-C159	ED624903	13-D805	EQ415055J	4-RL301	ET305463	3-TR107
EC368118	13-C803	ED624903	13-D806	ER200939	3-R162	ET305463	3-TR108
EC415076J	3-C150-A	ED624903	13-D807	ER200939	3-R163	ET305463	3-TR117
EC415076J	3-C151-A	ED624903	13-D808	ER324480	3-R128	ET305463	3-TR205-B
EC415077J	3-C150-B	ED624903	13-D809	ER324480	3-R129	ET305463	3-TR206-B
EC415077J	3-C151-B	ED624903	13-D810	ER328069	3-R175	ET305463	3-TR207
ED306010	7-D401	ED624903	13-D811	ER328069	3-R182	ET305463	3-TR208
ED307572	3-D106	ED624903	13-D812	ER333108	6-R501	ET305463	3-TR217
ED307572	3-D107	ED624903	13-D813	ER333108	6-R551	ET307195	3-TR102-B
ED307572	3-D109	ED624903	13-D814	ER333119	3-R131	ET307195	3-TR103-B
ED307572	3-D110	ED624903	13-D815	ER333119	3-R231	ET307195	3-TR104-B
ED307572	3-D206	ED624903	13-D816	ER341493	3-FR101	ET307195	3-TR109
ED307572	3-D207	EE396107M	16-3	ER341493	3-FR102	ET307195	3-TR202-B
ED307572	7-D205	EE415058J	7-FE101	ER341493	3-FR201	ET307195	3-TR203-B
ED307572	7-D206	EF415060J	3-F2	ER341493	3-FR202	ET307195	3-TR204-B
ED307572	7-D301	EF415060J	3-F3	ER353877	3-R126	ET307195	3-TR209
ED307572	7-D302	EF415061J	4-F1	ER353877	3-R127	ET322353	3-TR101
ED307572	7-D402	EH338338	7-FL102-B	ER353877	3-R226	ET322353	3-TR201
ED307572	8-D501	EH338338	7-FL103-B	ER353877	3-R227	ET337759	7-TR401
ED307572	8-D502	EH344434	7-FL201	ER368226	3-R130	ET345625	3-TR113
ED307572	8-D551	EH370069	7-FL301	ER368226	3-R230	ET345625	3-TR155
ED307572	8-D552	EH370069	7-FL302	ER368284	3-R125	ET345625	3-TR158
ED307572	8-D581	EH394759J	7-FL102-A	ER368284	3-R225	ET345625	3-TR213
ED307572	8-D582	EH394759J	7-FL103-A	ER378514J	3-R122	ET345626	3-TR114
ED307572	13-D802	EH405199J	7-FL104	ER378514J	3-R123	ET345626	3-TR153
ED307572	13-D803	EH418515J	13-IB801	ER378514J	3-R222	ET345626	3-TR214
ED327057	3-D103	EH418516J	13-IB802	ER378514J	3-R223	ET349458	7-TR201
ED327057	3-D104	EI349970	7-X301	ER378608J	3-R181	ET352726	3-TR105-A
ED327057	3-D105	EI361622	7-IC401	ER378833J	3-R166	ET352726	3-TR106-A
ED327057	3-D155	EI361624	7-IC101	ER378833J	3-R169	ET352726	3-TR112
ED327057	3-D156	EI367882J1	13-X801	ER382613J	3-R115	ET352726	3-TR150
ED327057	3-D157	EI382875J	13-X803	ER382613J	3-R118	ET352726	3-TR154
ED327057	3-D158	EI393323J	3-IC101	ER382613J	3-R120	ET352726	3-TR205-A
ED327057	3-D165	EI393325J	8-IC501	ER382613J	3-R215	ET352726	3-TR206-A
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ED327057	3-D203	EI393325J	9-IC602	ER382613J	3-R220	ET353897	7-TR203
ED327057	3-D204	EI408672J	13-IC801	ER411836J	3-R132	ET353899	3-TR119
ED327057	3-D205	EI408814M	7-X401	ER411836J	3-R232	ET353899	7-TR405
ED330219	3-D112	EI415073J	7-IC301	ES362883	7-TS1	ET353899	7-TR406
ED343421	3-D159	EI415074J	8-IC502	ES394427J	13-TS801	ET353899	10-TR781
ED343421	3-D160	EI415159J	13-IC803	ES394427J	13-TS802	ET353899	10-TR782
ED346528	3-D113	EI416515J	13-IC804	ES394427J	13-TS803	ET354094	7-TR303
ED346529	3-D167	EI416694M	13-X802	ES394427J	13-TS804	ET354094	7-TR304
ED372893	7-D201	EI416841J	13-IC802	ES394427J	13-TS805	ET354094	7-TR403
ED372893	7-D202	EJ329610	15-5	ES394427J	13-TS806	ET354094	7-TR404
ED383034J	3-D170	EJ342935	5-TM401	ES394427J	13-TS807	ET354094	8-TR581
ED383034J	3-D270	EJ359031	7-TM1	ES394427J	13-TS808	ET354094	8-TR583
ED384278J	3-D150	EJ368244	8-J502	ES394427J	13-TS809	ET354364	7-TR308
ED394509J	12-D702	EJ368244	8-J503	ES394427J	13-TS810	ET354364	7-TR309
ED396065J	7-D303	EJ384270J	8-J501	ES394427J	13-TS811	ET354365	13-TR801
ED400166J	9-D681	EJ391132J	6-J501	ES394427J	13-TS812	ET354365	13-TR802

Part No.	Ref. No.	Part No.	Ref. No.	Part No.	Ref. No.	Part No.	Ref. No.
ET354365	13-TR803	EW408724M	15-4-A				
ET354365	13-TR805	EW415021M	15-4-B				
ET354415	8-TR582	EZ371605	15-33				
ET354415	8-TR584	EZ401261J	15-26				
ET354415	8-TR585	SA379375	15-14				
ET354415	10-TR786	SB415182M	15-10				
ET354415	13-TR807	SB415183M	15-22				
ET356336	7-TR305	SE373237J1	15-9				
ET356437	7-TR101	SE373256	15-34				
ET368757	3-TR116	SE407867M	15-30				
ET368757	3-TR216	SE410963M	15-12				
ET368759	3-TR115	SE415169M	15-31-A				
ET368759	3-TR215	SE415171M	15-31-B				
ET369248	13-TR808	SE415179J	15-13				
ET373391	10-TR785	SK402898J	15-11				
ET375780	8-TR501	SK414260M	15-18				
ET375780	8-TR502	SK415178M	15-16				
ET375780	8-TR503	SK415180M	15-17				
ET375780	8-TR551	SM365756C	15-32				
ET375780	8-TR552	SP391360J1	15-19				
ET375780	8-TR553	SP415166J	15-29-A				
ET376880	3-TR151	SP415167J	15-29-B				
ET378524J	3-TR102-A	SP415172M	15-1-A				
ET378524J	3-TR103-A	SP415173M	15-1-B				
ET378524J	3-TR104-A	SP415174M	15-1-C				
ET378524J	3-TR110	SP415175M	15-1-D				
ET378524J	3-TR111	SP415176M	15-1-E				
ET378524J	3-TR152	ZS336611	15-24				
ET378524J	3-TR157	ZS336714	15-15				
ET378524J	3-TR202-A	ZS346742	15-7				
ET378524J	3-TR203-A	ZS358936	15-27				
ET378524J	3-TR204-A	ZS393644J	15-20				
ET378524J	3-TR210	ZS394412J	15-2				
ET378524J	3-TR211	ZS394414J	15-23				
ET378524J	7-TR306	ZS395789J	15-25				
ET378524J	7-TR307	ZS404225J	15-21				
ET378524J	8-TR504	ZS418383J	15-3				
ET378524J	8-TR505	ZW410640J	15-8				
ET378524J	8-TR506	ZW698308	15-28				
ET378524J	8-TR507						
ET378524J	8-TR554						
ET378524J	8-TR555						
ET378524J	8-TR556						
ET378524J	8-TR557						
ET378524J	11-TR701						
ET378524J	11-TR702						
ET378524J	11-TR751						
ET378524J	11-TR752						
ET394735J	7-TR202						
ET396072J	7-TR302						
ET397160J	3-TR118						
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ET397160J	3-TR122						
ET397160J	3-TR123						
ET397160J	3-TR156						
ET397160J	7-TR402						
ET397160J	7-TR407						
ET397160J	10-TR783						
ET397160J	10-TR784						
ET397160J	13-TR804						
ET397160J	13-TR806						
ET403432J	13-PH801						
EV389477J	7-VR301						
EV389479J	7-VR201						
EV389481J	7-VR202						
EV401270J	9-VR601						
EV401270J	9-VR602						
EV403534J	10-VR701						
EV415032M	11-VR702						

AKAI

MODEL AA-39
MODEL AA-49

SCHEMATIC DIAGRAMS AND PC BOARDS

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3. SYSCON AND OTHER PC BOARDS 5
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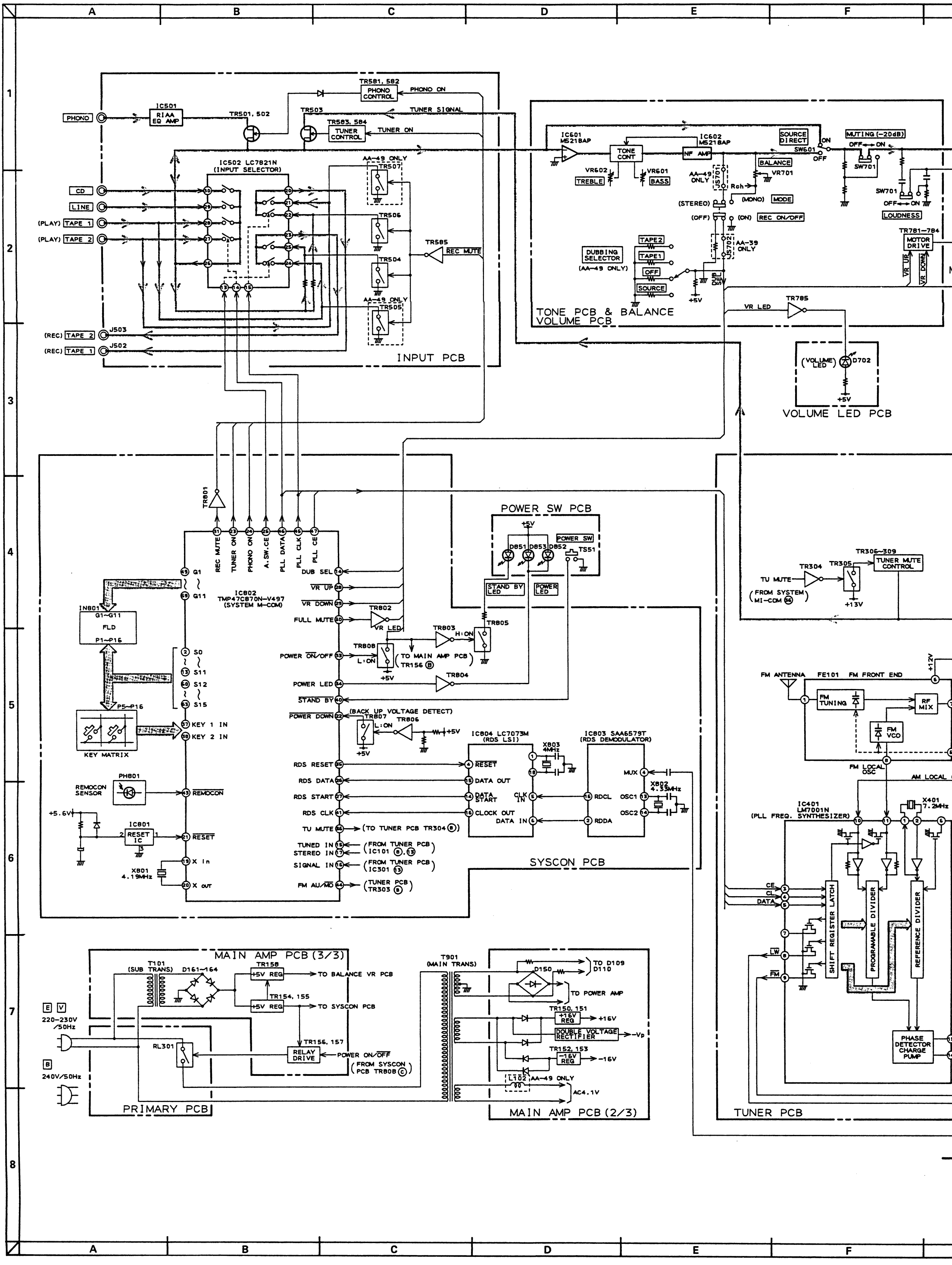
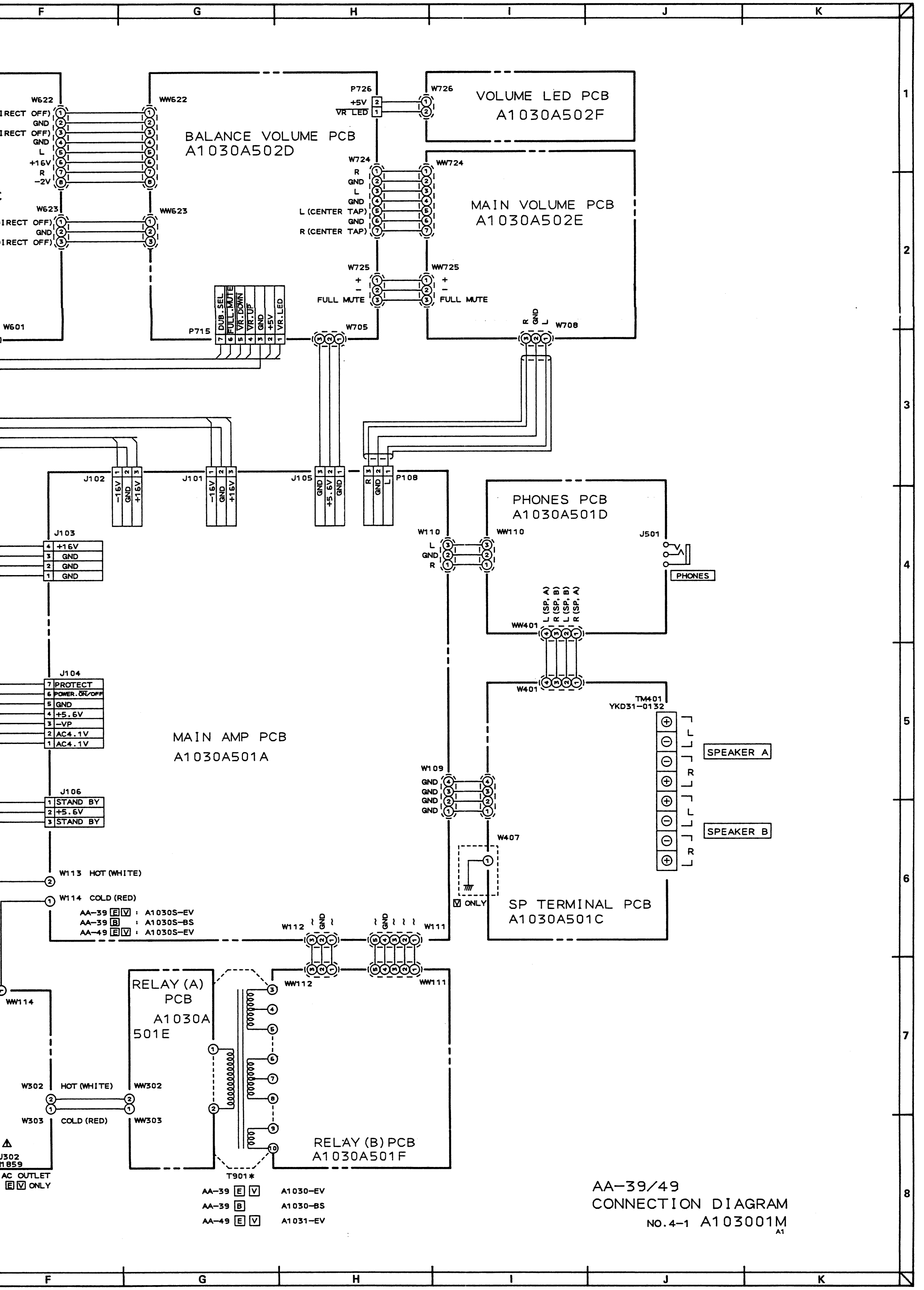
Use these schematic diagrams and PC boards together with the provided service manual.


PHONO
IC501 RIAA EQ AMP
TR501, 502
TR581, 582 PHONO CONTROL
PHONO ON
TR503
TUNER SIGNAL
TR583, 584 TUNER CONTROL
TUNER ON
IC502 LC7821N (INPUT SELECTOR)
AA-49 ONLY
TR507
TR506
TR504
TR505
TR585
REC MUTE
CD
LINE
(PLAY) TAPE 1
(PLAY) TAPE 2
(REC) TAPE 2
(REC) TAPE 1
J503
J502
INPUT PCB
IC601 M5218AP
IC602 M5218AP
TONE CONT
NF AMP
SOURCE DIRECT
ON
OFF
SW601
MUTING (-20dB)
OFF ON
SW701
VR602 TREBLE
VR601 BASS
BALANCE
VR701
AA-49 ONLY
JS701
Rch
(STEREO)
(MONO)
MODE
(OFF)
(ON)
REC ON/OFF
LOUDNESS
TR781-784
MOTOR DRIVE
VR UP
VR DOWN
DUBBING SELECTOR (AA-49 ONLY)
TAPE2
TAPE1
OFF
SOURCE
JS702
AA-39 ONLY
DUB SEL
+5V
TONE PCB & BALANCE VOLUME PCB
VR LED
TR785
(VOLUME LED)
D702
VOLUME LED PCB
TR801
REC MUTE
TUNER ON
PHONO ON
A.SW.CE
PLL DATA
PLL CLK
PLL CE
IC802 TMP47C870N-V497 (SYSTEM M-COM)
G1
G11
IN801 G1-G11 FLD P1-P16
P5-P16
S0
S11
S12
S15
KEY 1 IN
KEY 2 IN
KEY MATRIX
PH801
REMOCON SENSOR
REMOCON
+5.6V
IC801 RESET IC
RESET
X801 4.19MHz
X IN
X OUT
DUB SEL
VR UP
VR DOWN
FULL MUTE
TR802
VR LED
TR803
H:ON
TR805
TR808
L:ON
(TO MAIN AMP PCB TR156 B)
POWER ON/OFF
POWER LED
TR804
STAND BY
(BACK UP VOLTAGE DETECT)
POWER DOWN
TR807
TR806
+5V
RDS RESET
RDS DATA
RDS START
RDS CLK
TU MUTE
(TO TUNER PCB TR304 B)
TUNED IN
STEREO IN
(FROM TUNER PCB IC101 B, 13)
SIGNAL IN
(FROM TUNER PCB IC301 13)
FM AU/MO
(TUNER PCB TR303 B)
IC804 LC7073M (RDS LSI)
X803 4MHz
IC803 SAA6579T (RDS DEMODULATOR)
MUX
X802 4.33MHz
RESET
DATA OUT
DATA START
CLOCK OUT
DATA IN
CLK IN
RDCL
RDDA
OSC1
OSC2
POWER SW PCB
D851 D853 D852
POWER SW
TS51
STAND BY LED
POWER LED
SYSCON PCB
TR306-309
TUNER MUTE CONTROL
TR304
TR305
TU MUTE
(FROM SYSTEM MI-COM 56)
+13V
+12V
FM ANTENNA
FE101 FM FRONT END
FM TUNING
RF MIX
FM VCO
FM LOCAL OSC
AM LOCAL
IC401 LM7001N (PLL FREQ. SYNTHESIZER)
X401 7.2MHz
CE
CL
DATA
SHIFT REGISTER LATCH
PROGRAMABLE DIVIDER
REFERENCE DIVIDER
LW
FM
PHASE DETECTOR CHARGE PUMP
TUNER PCB
MAIN AMP PCB (3/3)
T101 (SUB TRANS)
D161-164
TR158 +5V REG
TO BALANCE VR PCB
TR154, 155 +5V REG
TO SYSCON PCB
TR156, 157 RELAY DRIVE
POWER ON/OFF (FROM SYSCON PCB TR808 C)
RL301
E V 220-230V /50Hz
B 240V/50Hz
PRIMARY PCB
T901 (MAIN TRANS)
D150
TO D109 D110
TO POWER AMP
TR150, 151 +16V REG
+16V
DOUBLE VOLTAGE RECTIFIER
-Vp
TR152, 153 -16V REG
-16V
L102 AA-49 ONLY
AC4.1V
MAIN AMP PCB (2/3)

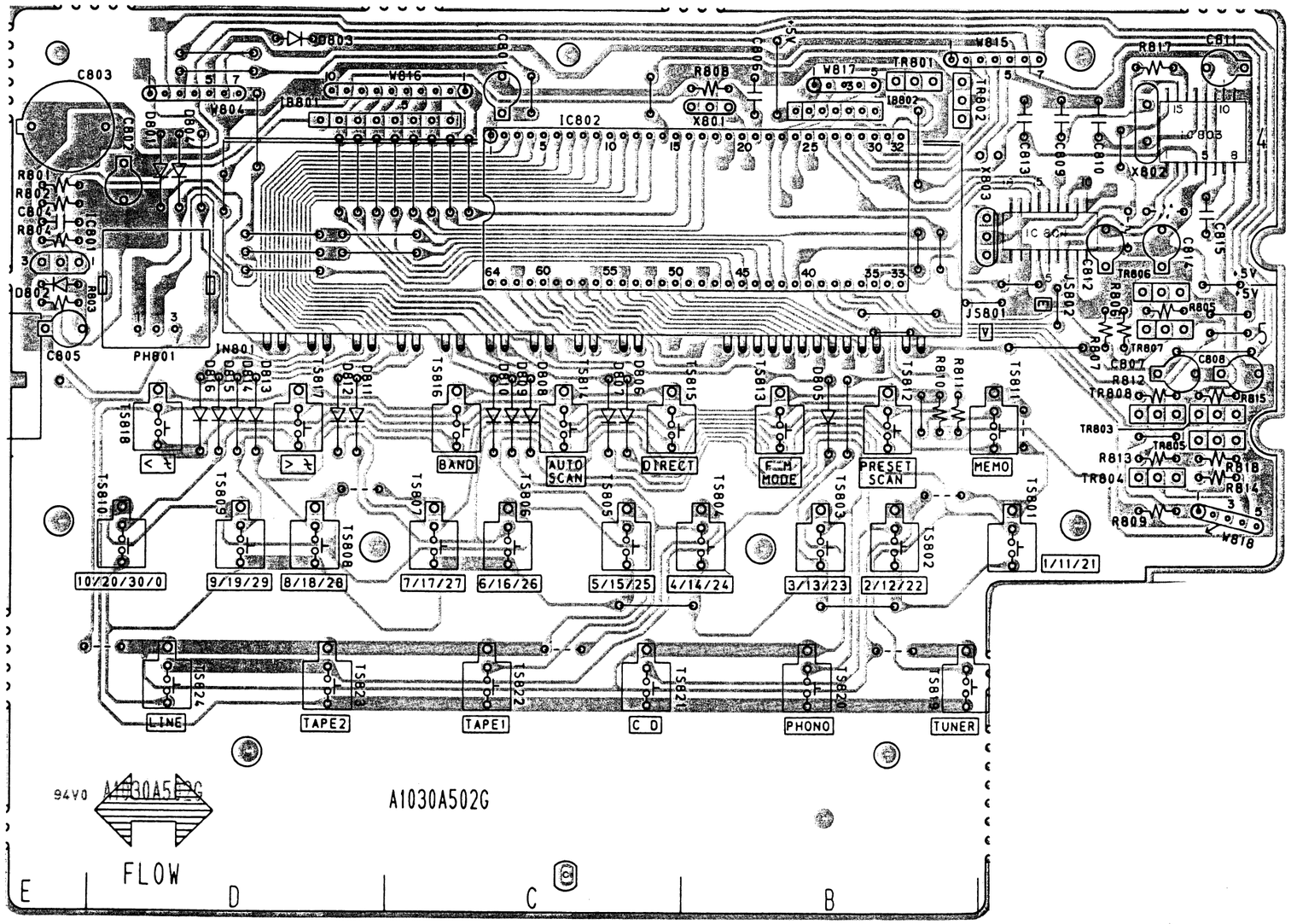
AA-39/49
BLOCK DIAGRAM
NO. A103051M
A1

WARNING: ⚠ AND ▒▒ INDICATE SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER' S RECOMMENDED PARTS

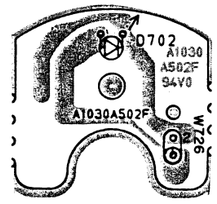
AVERTISSMENT: ⚠ ET ▒▒, ILS INDIQUENT LES COMPOSTANTS CRITIQUES DE SÉCURITÉ, POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L' APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT



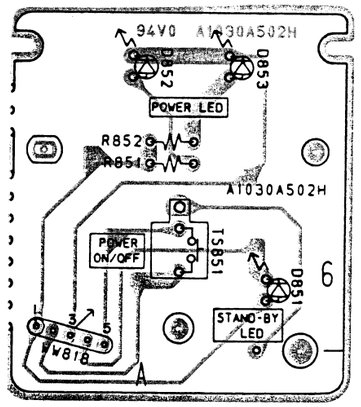
AA-39/49
CONNECTION DIAGRAM
NO.4-1 A103001M
A1



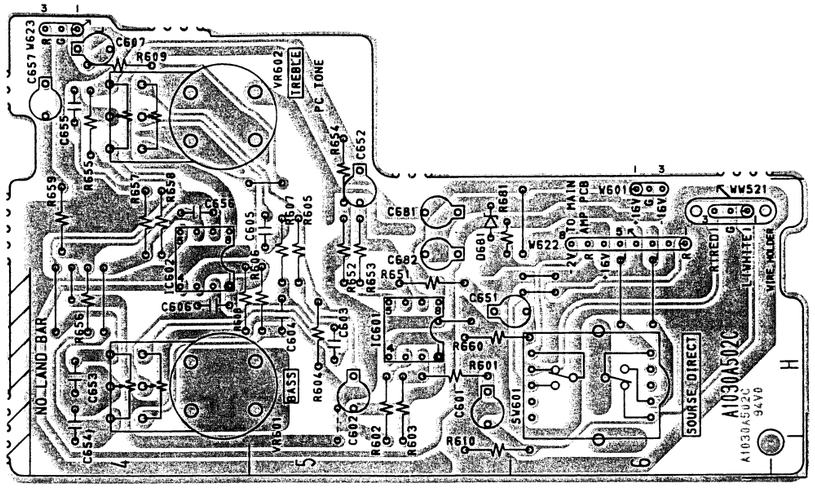
SYSCON PCB A1030A502G



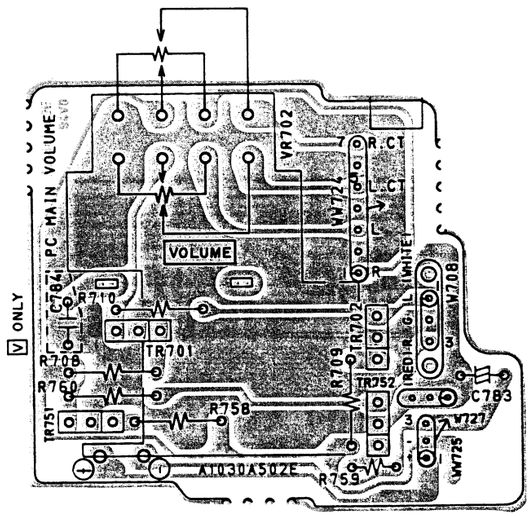
VOLUME LED PCB
A1030A502F



POWER SW PCB
A1030A502H



TONE PCB A1030A502C



MAIN VOLUME PCB A1030A502E

PRINCIPAL PARTS LOCATION

ICs

IC501 ..... B3
IC502 ..... B1,2

WIRES

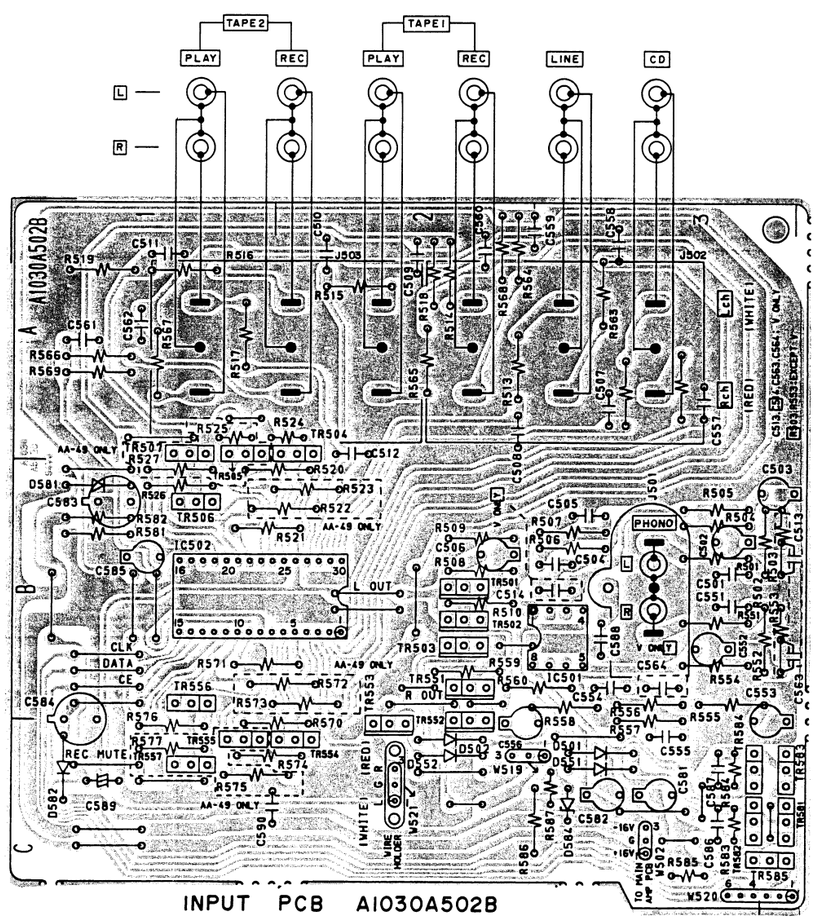
W521 ..... C2
W502 ..... C3
W520 ..... C3

CONNECTORs

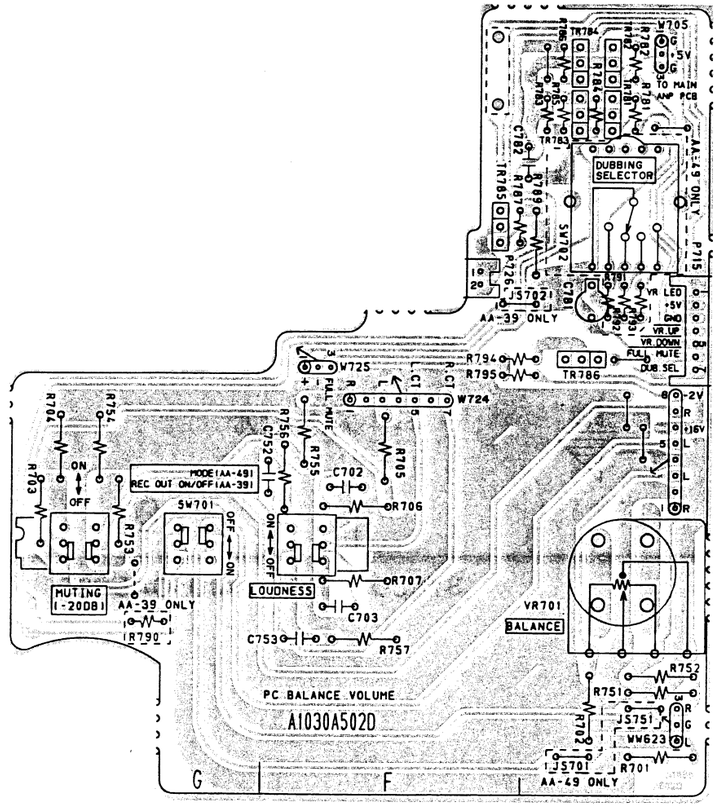
J501 ..... B3
J502 ..... A2,3
J503 ..... A1,2

TRANSISTORs

TR501 ..... B2
TR502 ..... B2
TR503 ..... B2
TR504 ..... A2
TR505 ..... A1
TR506 ..... B1
TR507 ..... A1
TR551 ..... B2
TR552 ..... C2
TR553 ..... C2
TR554 ..... C2
TR555 ..... C1
TR556 ..... B1
TR557 ..... C1
TR581 ..... C3
TR582 ..... C3
TR583 ..... C3
TR584 ..... C3
TR585 ..... C3



INPUT PCB A1030A502B



BALANCE VOLUME PCB A1030A502D

	V	E, B
R501, R551	1.2K	1K
R502, R552	1.2K	330
R504, R554	47K.	100K

INPUT PCB A1030A502B

TONE PCB A1030A502C

TUNER PCB A1030A502A

SYSCON PCB A1

F
G
H
I
J
K
1
2
3
4
5
6
7
8
BALANCE
MODE (AA-49)
MUTING (-20dB)
LOUDNESS
SOURCE DIRECT
TREBLE
BASS
DUBBING SELECTOR (AA-49)
REC ON/OFF (AA-39)
FULL MUTE
MAIN VOLUME PCB
A1030A502E
BALANCE VOLUME PCB A1030A502D
VOLUME LED PCB
A1030A502F
MAIN AMP PCB
A1030A501A
POWER SW PCB A1030A502H
SYSCON PCB A1030A502G
IC602 1/2 M5218AP
IC602 2/2
IC602 TMP47C870N-V497 A1030-1
IC804 LC7073M
IC803 SAA6579T
IN801 FIP 12CGM7
SIGNAL
TUNED
MEMO
FM AUTO
STEREO
AUTO ACAN
kHz
MHz
NOTE:
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/4W(J)
(A1030502G/502H
(ALL RESISTORS IN OHMS 1/6W(J))
ALL CAPACITORS IN μF (P=PF) 50WV(J)
ALL ELECTROLYTIC CAPACITORS IN μF/WV (M)
INDICATED VOLTAGES WERE MEASURED DURING FM STEREO MODE.
B (POWER SUPPLY) LINE
L-ch AUDIO SIGNAL LINE
AA-39/49
PRE AMP & SYSCON
SCHEMATIC DIAGRAM
NO.4-2 A103002M
A1

※2
R105
V 4.7K
E B 5.6K
※3
R218 C217
V 13K 0.001 (J)
E B 2.2K 0.0047 (J)
※1 FL102, FL103 : SFE10.7MS2GK-A EXCLUDE V
SFE10.7MS3GK-A V
FE101 FE417-G04
FRONT END
ANT IN
GND GND VT +12V IF OSC
TM1
YKD31-0215A
FM75Ω
AM LOOP
USABLE SENS.& STEREO DIS.ADJ
T101 K7-HS
TR101 2SC930 (E.F)
FL102
FL103
C101 0.01 (Z)
R101 680 1/4W
R117 680
R102 560
R103 3.3K
C102 0.01 (Z)
R105
C103 0.01 (Z)
R106 330
R107 120
C115 100/16
R115 200 1/4W
R108 200 1/4W
R204 330 1/4W
R223 330 1/4W
C205 0.01(Z)
T201, VC201 MW SENS.ADJ.
T201 (MW)
T202 (LW)
T202, VC202 LW SENS.ADJ.
T201 : MRHNF-45669A
T202 : MRZNF-45670A
D201 SVC321
TR201 2SK192AY
TR202 2SC3792
R205 10K
R206 100K 1/4W
C208 510P (J)
D206 A7NRS-9857X
MW OSC ADJ.
T203 (MW)
TR203 DTC114ES
D202 SVC321
D205
T204 (LW) 7BRS-9098X
LW OSC ADJ.
C211 0.022 (Z)
R412 3.3K
R405 560
R411 220 1/4W
R409 3.3K
C405 0.33/50 (K)
R408 10K
C404 100/16
R413 10K
TR404 DTC144WS
TR401 2SK246 (G, R)
TR402 2SC3330 (S, T, U)
R410 10K
R406 560
R404 4.7K
TR403 DTC144WS
D401 HZ6-A2
R407 270
C403 100/10
C406 0.047 (K)
TP VT
C221 0.01(Z)
R419 620 1/4W
R402 620 1/4W
R403 10K
IC401 LM7001
Vss PD2 VDD2 VDD1 FM IN AM IN FM CE CL DATA LW
C401 27P (J)
C402 27P (J)
R401 560K
X401 HC-49/U 7.2MHZ
R315 3.3K
D302
TR303 DTC144WS
FM+B
AM IF ADJ.
T205
BCFAZ-024
R213 6.2K
※3 C217
VR202 47K
FM SIG ADJ.
R219 56K
C220
C215 3.3/50
R209 10K
R210 10K
C212 0.022 (Z)
R212 AM SIG ADJ. 1.5K
VR201 22K
※3 R218
C213 0.022 (Z)
C214 1/50
R208 1.5K
C216 0.01 (Z)
C218 3.3/50
AM
IC101 LA1265
BUFFER OSC REG RF MIX AGC AM-IF S-METER DET
LEVEL DET LEVEL DET FM-IF Q.D SD ADJ LED DRIVER
GND VCC S CURVE POST AMP
R109 18K
CENTER VOLT ADJ.
T103 5251-01
T104 250-03
R112 2.4K
R207 100
TP CNT
R110 36K 1/4W
FM
C104 0.047 (Z)
C105 0.047 (Z)
C113 100/16
C107 1/50
C108 100P (K)
FL201 BFU450C
C109 100/16
AM+B
R116 22K
R114 33K
R414 22K
TR405 2SA1317 (S.T.U)
R415 22K
R416 1K
D402
TR406 2SA1317 (S.T.U)
R418 220 1/4W
R417 10K
8.3V
TUNER PCB A1030A502A
B (POWER SUPPLY) LINE
Lch AUDIO SIGNAL LINE
INDICA
DURING

	F	G	H	I	J	K

TO INPUT PCB W520

A.SW/PLL.CLK
A.SW/PLL.DATA
A.SW.CE
REC MUTE
POWER ON
TUNER ON

WW520 (6 5 4 3 2 1)

TO SYSCON PCB W817

J117
TUNER ON 1
PHONO ON 2
REC MUTE 3
A.SW.CE 4
RDS SIGNAL 5

	C217
3K	0.001 (J)
.2K	0.0047 (J)

※4

	R301 R302	R303 R304	C305 C306
V	300K	300K	150P
E B	150K	150K	330P

R213 6.2K
※3 C217
VR202 47K FM SIG ADJ.
R219 56K
C220 0.022 (Z)
R220 100 1/4W
R210 10K
R212 11.5K SIG ADJ.
VR201 22K
※3 R218
AM
RDS SIGNAL
C218 3.3/50
C216 0.01 (Z)

IC301 LA3401

C312 100/16
X301 CSB456F11
C310 1/50
C311 0.22/16
R310 5.6K
R309 33K
C309 1/50
C308 1/50
R307 1K
R306 1K
D301

Vol Reg
osc
Phase Comparator
Pilot Det
Vco Stop
Lamp Driver
Trigger
Symmetrical Reactance Circuit
FF
FF
FF 38kHz
FF 19k 90°
FF 19k 0°
Stereo Switch
Decoder
Muting Control FM AM Change
Muting Output
Muting FM AM Cahange
Vco Os Muting
Ra
Rb
Rc

C313 0.047 (Z)
C301 0.022 (J)
C302 4.7/25
C303 100P
C304
VR301 100K
※4 R301
※4 R302
※4 C305
※4 C306
※4 R303
※4 R304
C307 10/16
R305 27K

EXCEPT V
JS3
V ONLY
FL104 79-5299-12
R113 4.7K
C111 22/16
C112 330P (J)

SD ADJ
LED DRIVER
S CURVE
POST AMP
S-METER
DET
M-IF
R207 100
TP CNT
FM
R110 36K 1/4W
C113 100/16
C107 1/50
C108 100P (K)
FL201 BFU450C
C109 10/16
AM+B
R116 22K
R114 33K

C314 4.7/25
C315 4.7/25
R312 3.3K
R311 3.3K
FL301 42B-1081-00
FL302 42B-1081-00
R313 3.3K
R314 3.3K
TR307 2SC3383 (S, T)
R321 100
TR309 DTC143TS
TR308 DTC143TS
R318 5.6K
R319 5.6K
TR306 2SC3383 (S, T)
R320 100
*JS1
*L301 2.2μH
*L302 2.2μH
*JS2

TR405 2SA1317 (S.T.U)
R418 220 1/4W
TR406 2SA1317 (S.T.U)
R415 22K
R416 1K
D402
R417 10K
TR304 DTC144WS
TR305 DTA144ES

TR407 2SC3330 (S, T, U)
R420 10K 1/4W

J116
GND (SYS) 10
RESET 9
PLL.CE 8
A.SW/PLL.DATA 7
A.SW/PLL.CLK 6
FM AU/MO 5
TU.MUTE 4
STEREO 3
SIGNAL 2
TUNED 1

TO SYSCON PCB W816

TR302 2SD2159 (V, W)
+12V
R322 100
R316 1K 1/4W
R317 100 4W
C317 100/16
D303 HZ12LC1
C316 100/25
C318 100/25

TS1 RESET

W519
3 R OUT
2 GND
1 L OUT
TO INPUT PCB W519

W103
4 GND
3 GND
2 GND
1 +16V
TO MAIN AMP PCB J103

*JS1, 2: EXCEPT V
*L301, 302: V ONLY

)LINE
NAL LINE

INDICATED VOLTAGES WERE MEASURED DURING FM STEREO MODE.

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/6W (J)
ALL CAPACITORS IN μF 50WV (M)
ALL DIODES ARE 1SS131

AA-39/49
TUNER
SCHEMATIC DIAGRAM
NO.4-3 A103003M
A1

	F	G	H	I	J	K

PRINCIPAL PARTS LOCATION

TRANSISTORs

TR101	F2,3	TR401	D1
TR201	F,E2	TR402	D1
TR202	F,E3	TR403	E2
TR203	F1	TR404	E2
TR302	F3	TR405	E1
TR303	H1	TR406	E1
TR304	H3	TR407	E1
TR305	H3		
TR306	H3	**ICs**	
TR307	H3	IC101	F2
TR308	H3	IC301	H2
TR309	H3	IC401	D1

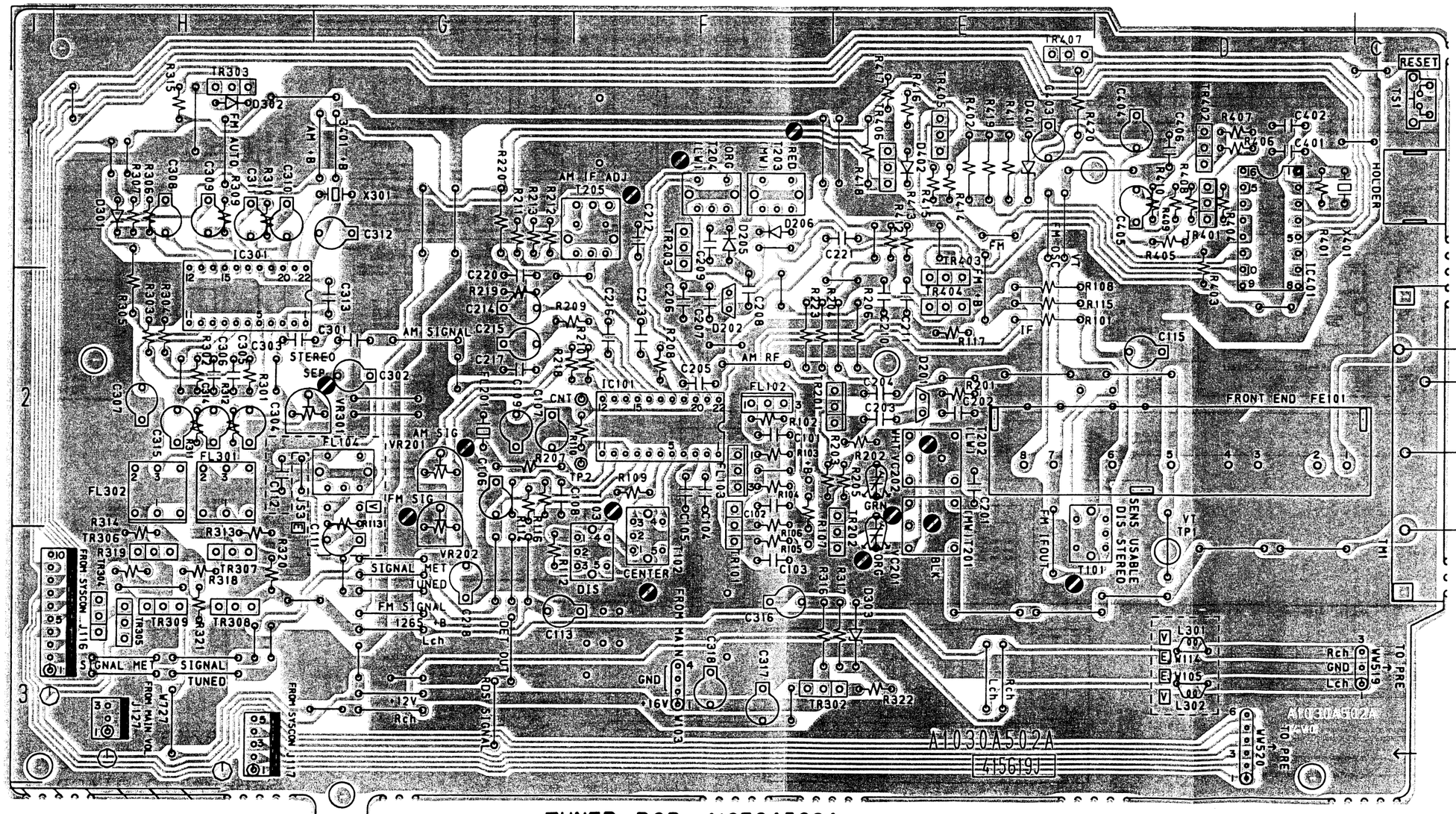
CONNECTORs

J116	3H,I
J117	H3
J127	H3

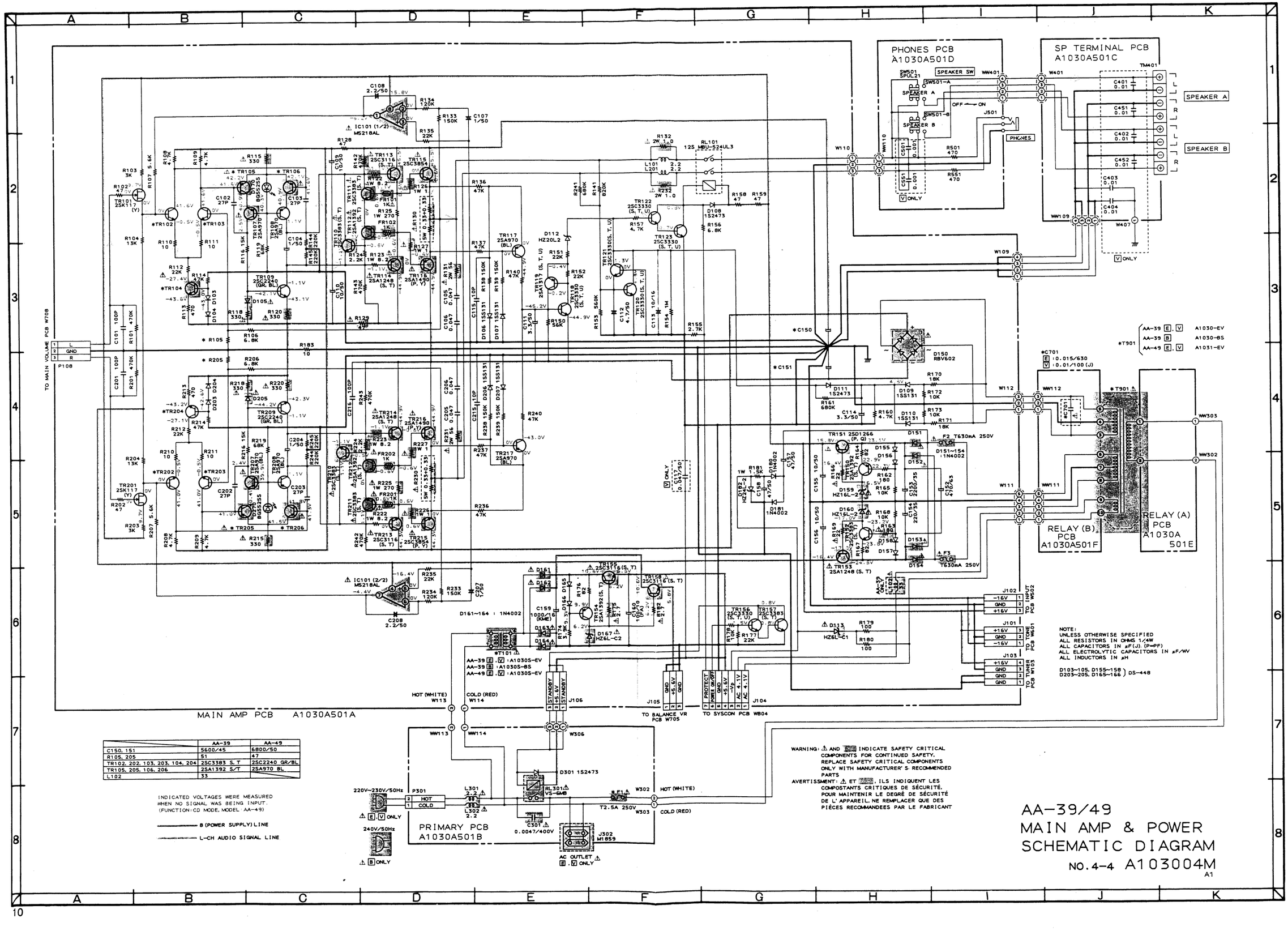
WIRES

W103	F3
WW519	C3
WW520	D3

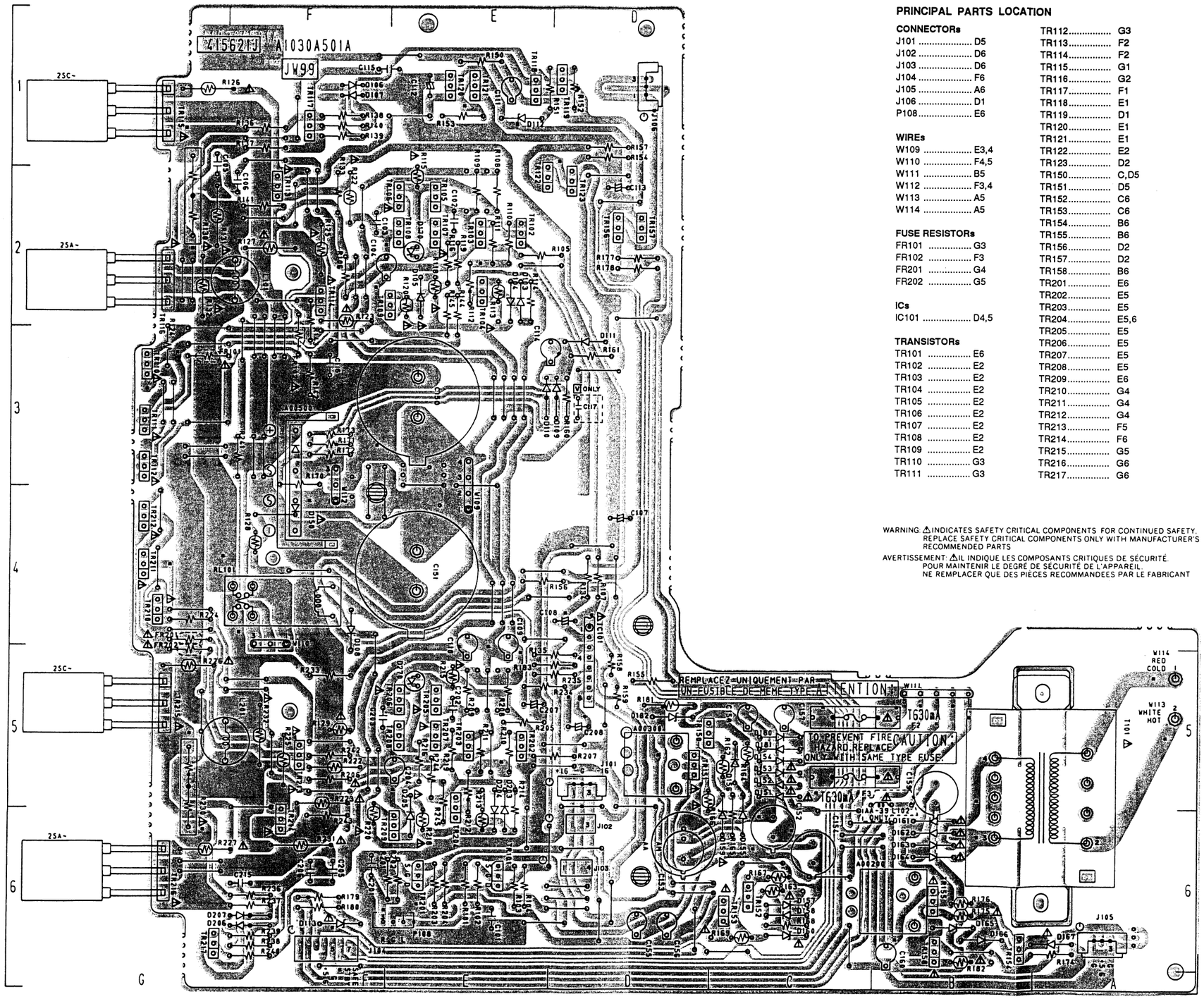
NOTE : PARTS DIFFER DEPENDING ON MODEL NUMBER. REFER TO SCHEMATIC DIAGRAMS FOR PERTINENT PARTS INFORMATION.



TUNER PCB A1030A502A


PHONES PCB
A1030A501D
SP TERMINAL PCB
A1030A501C
SPEAKER SW
SPEAKER A
SPEAKER B
PHONES
V ONLY
RELAY (A) PCB A1030A 501E
RELAY (B) PCB A1030A501F
MAIN AMP PCB A1030A501A
PRIMARY PCB A1030A501B
TO MAIN VOLUME PCB W708
TO BALANCE VR PCB W705
TO SYSCON PCB WB04
TO TUNER PCB W903
TO INPUT PCB W902
AA-39 E, V A1030-EV
AA-39 B A1030-BS
AA-49 E, V A1031-EV
NOTE:
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/4W
ALL CAPACITORS IN μF(J), (P=PF)
ALL ELECTROLYTIC CAPACITORS IN μF/WV
ALL INDUCTORS IN μH
D103~105, D155~158, D203~205, D165~166) DS-448
WARNING: ⚠ AND ▩ INDICATE SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY. REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS
AVERTISSMENT: ⚠ ET ▩, ILS INDIQUENT LES COMPOSTANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L' APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT
INDICATED VOLTAGES WERE MEASURED WHEN NO SIGNAL WAS BEING INPUT. (FUNCTION:CD MODE, MODEL AA-49)
B (POWER SUPPLY) LINE
L-CH AUDIO SIGNAL LINE
AA-39/49
MAIN AMP & POWER SCHEMATIC DIAGRAM
NO.4-4 A103004M
A1

	AA-39	AA-49
C150, 151	5600/45	6800/50
R105, 205	51	47
TR102, 202, 103, 203, 104, 204	2SC3383 S, T	2SC2240 GR/BL
TR105, 205, 106, 206	2SA1392 S/T	2SA970 BL
L102	33	



MAIN AMP PCB A1030A501A(J1)

PRINCIPAL PARTS LOCATION

CONNECTORs

J101	D5
J102	D6
J103	D6
J104	F6
J105	A6
J106	D1
P108	E6

WIREs

W109	E3,4
W110	F4,5
W111	B5
W112	F3,4
W113	A5
W114	A5

FUSE RESISTORs

FR101	G3
FR102	F3
FR201	G4
FR202	G5

ICs

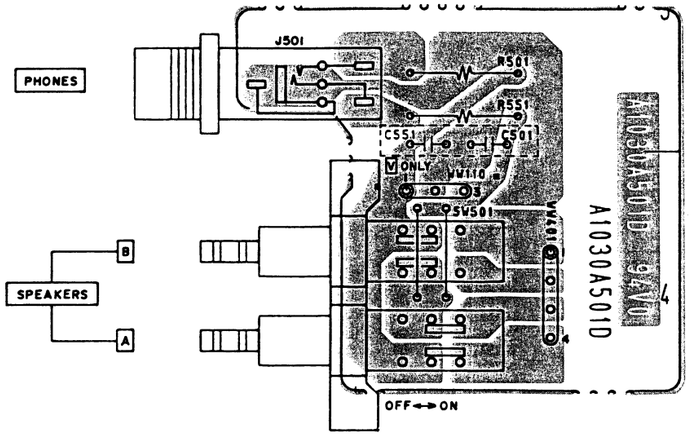
IC101	D4,5

TRANSISTORs

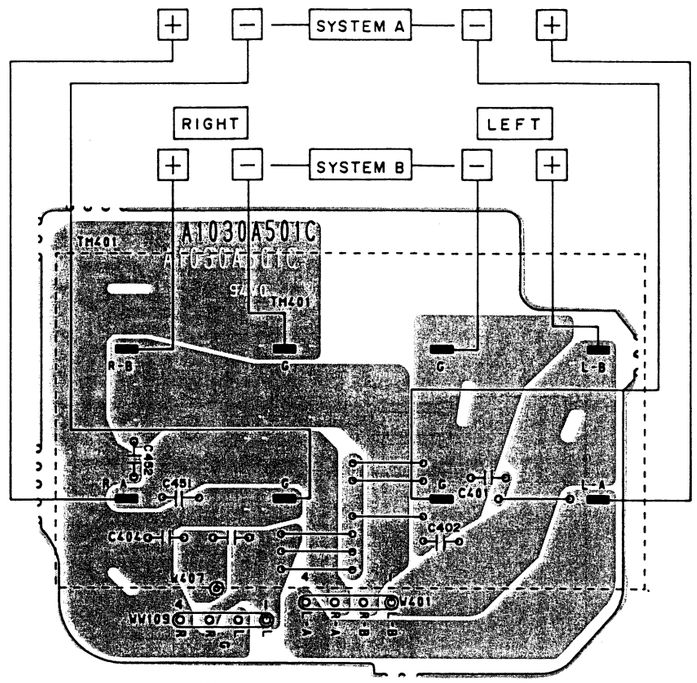
TR101	E6
TR102	E2
TR103	E2
TR104	E2
TR105	E2
TR106	E2
TR107	E2
TR108	E2
TR109	E2
TR110	G3
TR111	G3
TR112	G3
TR113	F2
TR114	F2
TR115	G1
TR116	G2
TR117	F1
TR118	E1
TR119	D1
TR120	E1
TR121	E1
TR122	E2
TR123	D2
TR150	C,D5
TR151	D5
TR152	C6
TR153	C6
TR154	B6
TR155	B6
TR156	D2
TR157	D2
TR158	B6
TR201	E6
TR202	E5
TR203	E5
TR204	E5,6
TR205	E5
TR206	E5
TR207	E5
TR208	E5
TR209	E6
TR210	G4
TR211	G4
TR212	G4
TR213	F5
TR214	F6
TR215	G5
TR216	G6
TR217	G6

WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

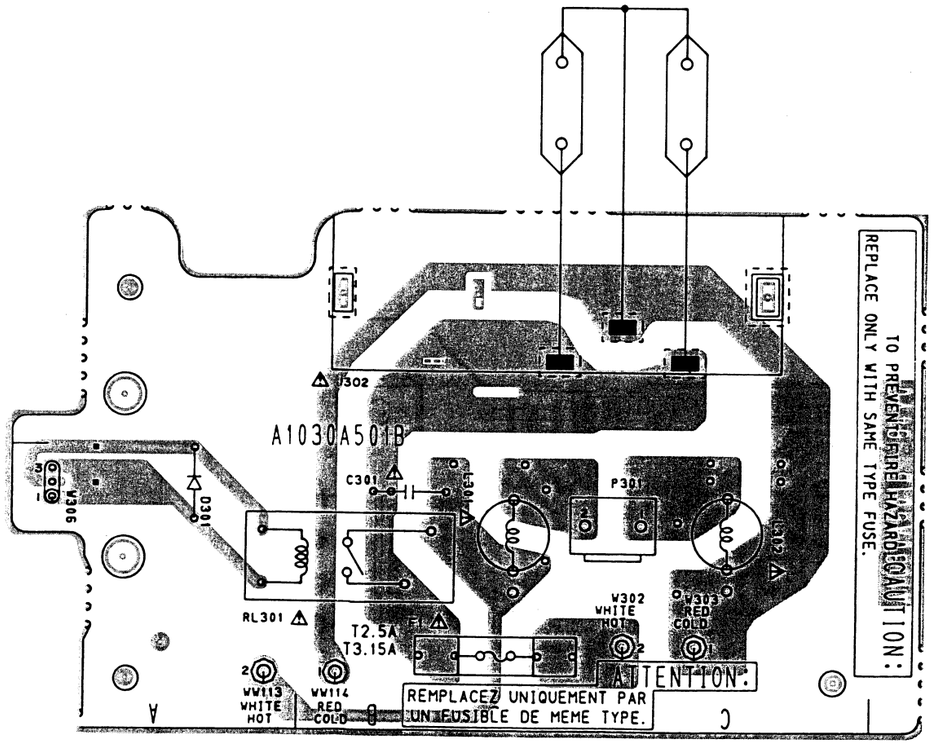
AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT



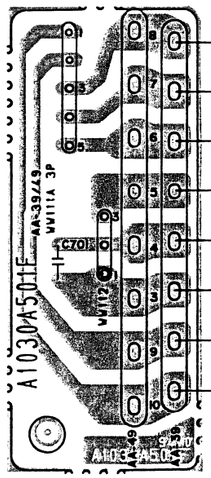
PHONES PCB A1030A501D(J1)



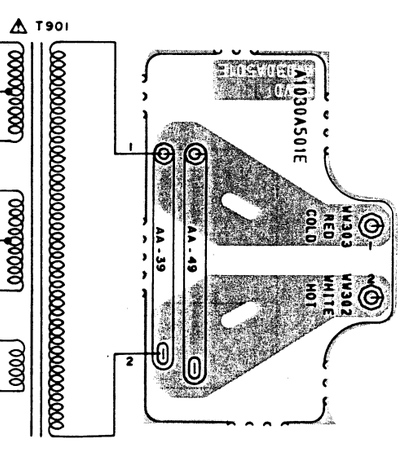
SP TERMINAL PCB A1030A501C(J1)



PRIMARY PCB A1030A501B(J1)



RELAY(B) PCB
A1030A501F(J1)

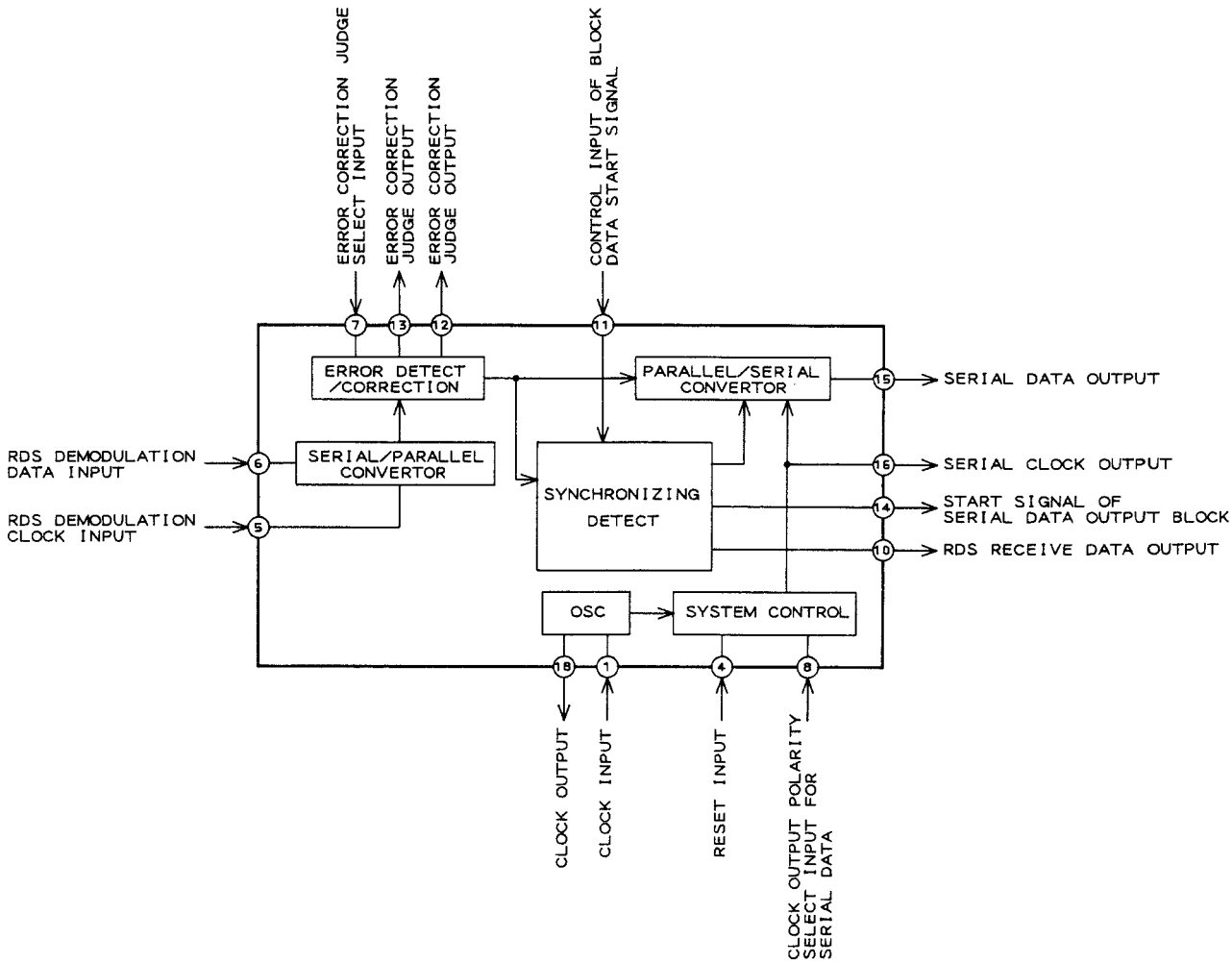


RELAY(A) PCB
A1030A501E(J1)

WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

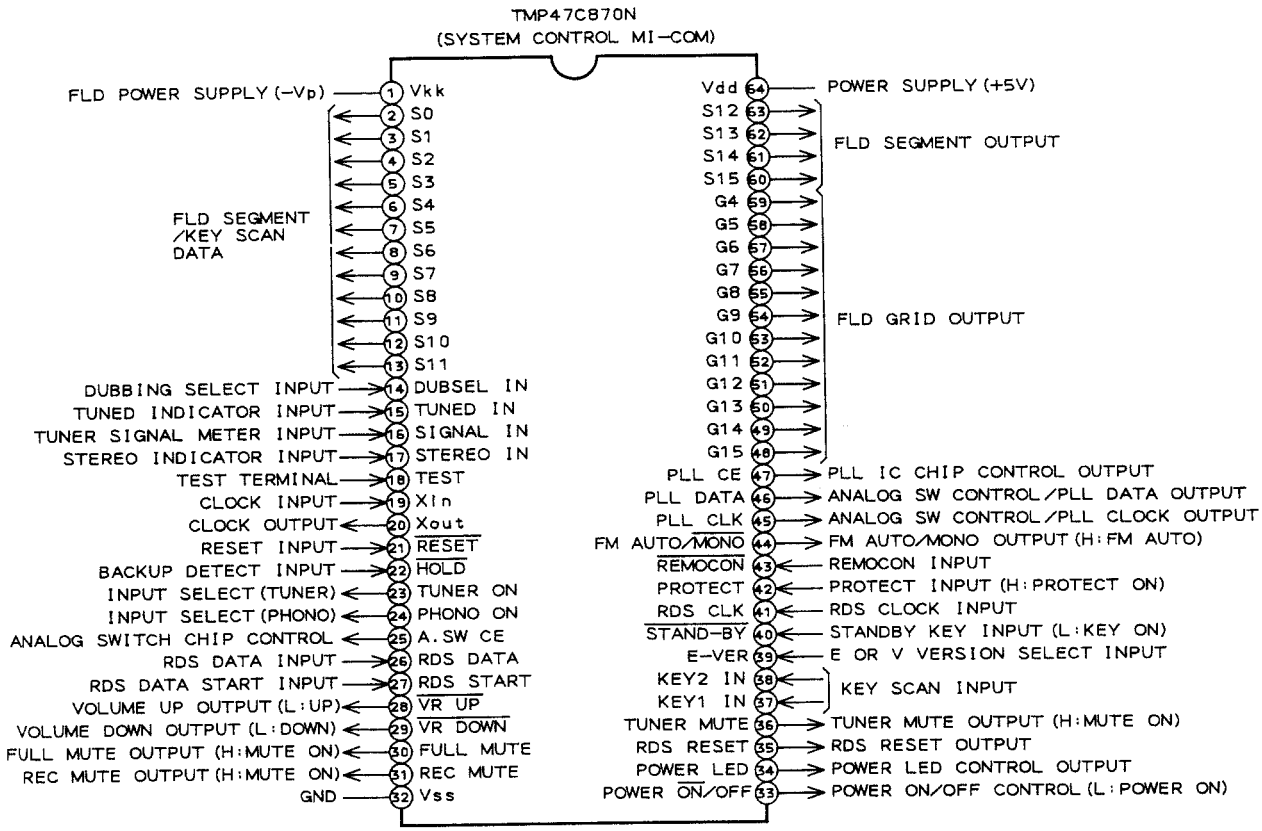
LC7073M (RDS LSI)



SAA6579T (RDS DEMODULATOR)

PIN No	PORT NAME	I/O	FUNCTION
1	QUAL	O	QUALITY INDICATION OUTPUT
2	RDDA	O	RDS DATA OUTPUT
3	VREF	—	REFERENCE VOLTAGE OUTPUT
4	MUX	I	MULTIPLEX SIGNAL INPUT
5	VDD	—	+5 V SUPPLY VOLTAGE FOR ANALOG PART
6	VSS	—	GND FOR ANALOG PART
7	CIN	I	SUBCARRIER INPUT TO COMPARATOR
8	SCOUT	O	SUBCARRIER OUTPUT OF RECONSTRUCTION FILTER
9	MODE	I	OSCILLATOR MODE / TEST CONTROL INPUT
10	TEST	I	TEST ENABLE INPUT
11	VSS	—	GND FOR DIGITAL PART
12	VDD	—	+5 V SUPPLY VOLTAGE FOR DIGITAL PART
13	OSC1	I	OSCILLATOR INPUT
14	OSC0	O	OSCILLATOR OUTPUT
15	T57	O	57 kHz CLOCK SIGNAL OUTPUT
16	RDCL	O	RDS CLOCK OUTPUT

TMP47C870N (SYSTEM CONTROL MI-COM)


TMP47C870N
(SYSTEM CONTROL MI-COM)
FLD POWER SUPPLY (-Vp) 1 Vkk
2 S0
3 S1
4 S2
5 S3
6 S4
7 S5
8 S6
9 S7
10 S8
11 S9
12 S10
13 S11
FLD SEGMENT /KEY SCAN DATA
DUBBING SELECT INPUT 14 DUBSEL IN
TUNED INDICATOR INPUT 15 TUNED IN
TUNER SIGNAL METER INPUT 16 SIGNAL IN
STEREO INDICATOR INPUT 17 STEREO IN
TEST TERMINAL 18 TEST
CLOCK INPUT 19 XIn
CLOCK OUTPUT 20 Xout
RESET INPUT 21 RESET
BACKUP DETECT INPUT 22 HOLD
INPUT SELECT (TUNER) 23 TUNER ON
INPUT SELECT (PHONO) 24 PHONO ON
ANALOG SWITCH CHIP CONTROL 25 A.SW CE
RDS DATA INPUT 26 RDS DATA
RDS DATA START INPUT 27 RDS START
VOLUME UP OUTPUT (L:UP) 28 VR UP
VOLUME DOWN OUTPUT (L:DOWN) 29 VR DOWN
FULL MUTE OUTPUT (H:MUTE ON) 30 FULL MUTE
REC MUTE OUTPUT (H:MUTE ON) 31 REC MUTE
GND 32 Vss
Vdd 64 POWER SUPPLY (+5V)
S12 63
S13 62
S14 61
S15 60
FLD SEGMENT OUTPUT
G4 59
G5 58
G6 57
G7 56
G8 55
G9 54
G10 53
G11 52
G12 51
G13 50
G14 49
G15 48
FLD GRID OUTPUT
PLL CE 47 PLL IC CHIP CONTROL OUTPUT
PLL DATA 46 ANALOG SW CONTROL/PLL DATA OUTPUT
PLL CLK 45 ANALOG SW CONTROL/PLL CLOCK OUTPUT
FM AUTO/MONO 44 FM AUTO/MONO OUTPUT (H:FM AUTO)
REMOCON 43 REMOCON INPUT
PROTECT 42 PROTECT INPUT (H:PROTECT ON)
RDS CLK 41 RDS CLOCK INPUT
STAND-BY 40 STANDBY KEY INPUT (L:KEY ON)
E-VER 39 E OR V VERSION SELECT INPUT
KEY2 IN 38
KEY1 IN 37
KEY SCAN INPUT
TUNER MUTE 36 TUNER MUTE OUTPUT (H:MUTE ON)
RDS RESET 35 RDS RESET OUTPUT
POWER LED 34 POWER LED CONTROL OUTPUT
POWER ON/OFF 33 POWER ON/OFF CONTROL (L:POWER ON)

ABBREVIATIONS (TUNER)

ABBREVIATION	EXPLANATION	ABBREVIATION	EXPLANATION
AFC	Auto Frequency Control	MEMO	MEMOry
AGC	Auto Gain Control	MI-COM	MIcro-COMputer
ALC	Auto Level Control	MIN	MINimum
AM	Amplitude Modulation	MIX	MIXing
AMP	AMPlifier	MPX	Multi pleX
ANT	ANTenna	MW	Medium Wave (frequency)
BATT	BATTery	NC	No Connection
BLK	BLocK	NFB	Negative Feed Back
BUFF	BUFFer	OSC	OSCillator
COMP	COMPalator	PCB	Printed Circuit Board
DET	DETect (DETctor)	PLL	Phase Locked Loop
FLD	FLuorescent Display	Q.D	Quadrature Detector
FM	Frequency Modulation	Rch	Right channel
FREQ	FREQuency	REF	REFerence
GND	GrouND	REG	REGulator
H	Hight	RF	Radio Frequency
HPF	Hight Pass Filter	SEG	SEGment
IF	Intermediate Frequency	SELE	SELEctor
IHF	Institut of High Fidelity	SENS	SENSitivity
IND	INDicator	SIG	SIGnal
I/O	In/Out	S/N	Signal to Noise Ratio
JW	Jumper Wire	SSG	Standard Signal Generator
L	Low	STD	STanDard
LCD	Liquid Crystal Display	SW	SWitch: Short Wave (frequency)
Lch	Left channel	THD	Total Harmonic Distortion
LED	Light Emiting Diode	TP	Test Point
LPF	Low Pass Filter	VCO	Voltage Controlled Cscillator
LW	Long Wave (Frequency)	VR	Variable Resistor
		X'TAL	Crystal

ABBREVIATIONS (AMPLIFIER)

ABBREVIATION	EXPLANATION	ABBREVIATION	EXPLANATION
A	Analog	MC	Moving Coil
AC	Alternating Current	MM	Moving Magnet
AMP	AMPlifier	PCB	Printed Circuit Board
CD	Compact Disc	R	Right
COM	COMmon	REG	REGulator
D	Digital	REC	RECord
D/A	Digital to Analog	TR	TRansistor
DAC	Digital to Analog Converter	SW	SWitch
DAT	Digital Audio Tape recorder	V.AMP	Voltage AMPlifier
DC	Direct Current	V.DISC	Video DISC
GND	GrouND	VR	Variable Resistance
L	Left	VTR	Video Tape Recorder
LED	Light Emitting Diode		

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